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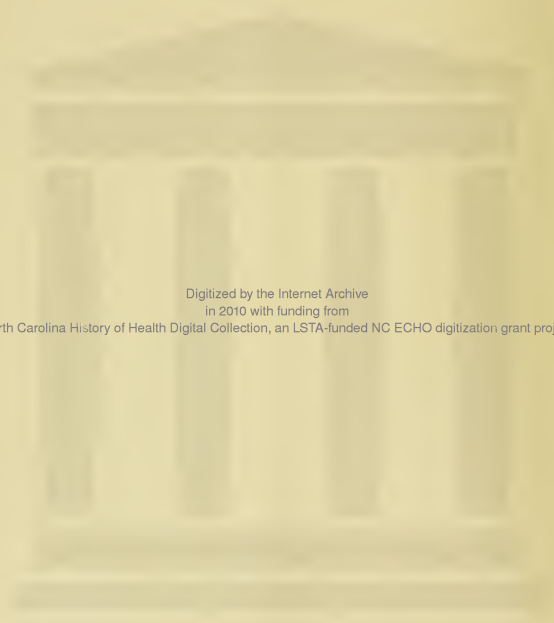
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Charlotte Medical Journal.

A SOUTHERN JOURNAL OF MEDICINE AND SURGERY.

VOLUME 58.
NUMBER 1.

Charlotte, N. C., July, 1908.

\$2.50
PER ANNUM

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— During Hot Weather —

the alimentary canal lies in the zone of trouble. Disturbances are hard to avoid, and harder still to cure. The best thing to preserve order and restore normal conditions is

— ELIXIR OF ENZYMES —

a potent and palatable preparation of the digestive ferments acting upon proteid substance in an acid medium.

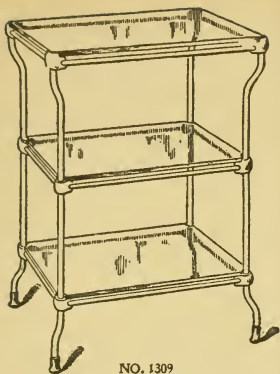
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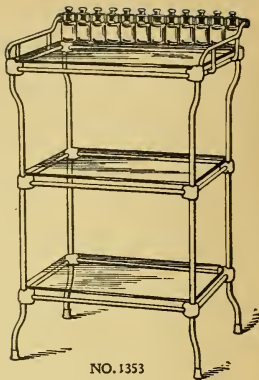


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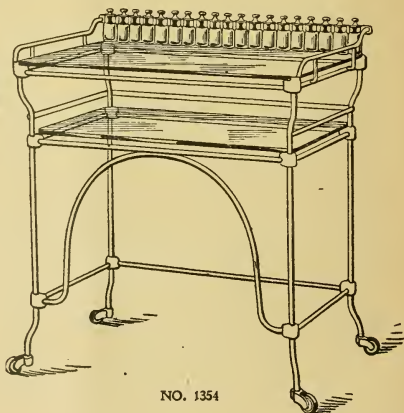
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The Charlotte Medical Journal.

VOL. LVIII

CHARLOTTE, N. C., JULY, 1908.

No. 1

Random Notes on the History, Aims, and Purposes of the Medical Society of the State of North Carolina; Being the "President's Annual Address" on the Occasion of the Fifty-Fifth Annual Session of the Medical Society of the State of North Carolina, Held in the City of Winston-Salem, N. C., June 16, 17 and 18, 1908.

By J. Howell Way, M. D., Waynesville, N. C.
Fellow Members of the Society:

Only the favored few who have been by your kind partiality thus similarly placed can fully appreciate the genuine difficulty I have experienced in the selection of a subject for my remarks to you today. A glance at the very elaborate and complete program of papers arranged for consideration at this meeting suggests the pertinent fact that practically every department of medical science and art will be covered by the various essayists who follow me, hence for your president to attempt the discussion of some purely medical theme would be, to say the least, superfluous. Excluding then, as I have done, topics technical or scientific, from serious consideration as befitting the President's Address, the field of election is materially narrowed, and after due deliberation, I have decided to invite your attention to some random thoughts relative to the history, aims and purposes of the Medical Society of the State of North Carolina.

But before engaging in some observations along these lines I cannot forbear again expressing to you my profound appreciation of the honor of presiding over the fifty-fifth annual session of this learned body of near twelve hundred members. The Medical Society of the State of North Carolina is indeed in truth a great and a grand organization, and our coming together today on the historic soil of old Wachovia from whose sacred precincts have, in past generations, emanated so many noble and inspiring impulses for the elevating of the moral, educational, and sound financial uplift of our great commonwealth: is a pleasing and ennobling spectacle.

But delightful as is this fine sisterhood of twin-cities in a social way, alluring and inviting as are her many attractions, it is not these alone which impel our presence in Winston-Salem today. Our coming together in this annual conclave is not without great sacrifice on the part of every one present, but the reason is not far to seek. We are here because we have ideals. Each of

us would elevate and uplift higher the professional standards of the medical profession; we would add to our individual stores of learning; we would seek to impart one to another the helpful experiences of the past year; we would gather fresh inspiration for the labors and the toils of our daily vocation of helping to better health, better ideals, those whose all is daily committed to our care. Not one of us has a plan or a practice wholly flawless, or do we as individuals even hope to evolve such. In union there is strength, in counsel there is wisdom: thus annually do we find our great body of the elect of the State's great medical profession gathering together at some appointed place and striving for our ideals. And it is well that we do. Much has been accomplished in the past three-score years since the evolution of the times brought this society into existence; but while much has been done in the past, there yet remains even greater achievements to be realized ere it can be truly said our work is done.

We have before us examples and the ideals of the men of this body of the past generations, worthy leaders of a noble profession. The eloquent and resourceful Edmund Strudwick, our first President, and his worthy successors, the talented N. J. Pittman, the greatly beloved Will George Thomas, the brilliant E. Burke Haywood, the accomplished Marcellus Whitehead, the devoted S. S. Satchwell, the learned Thos. F. Wood, the gentle J. H. Tucker, the noble Charles J. O'Hagan, the skilled alienist, P. L. Murphy, the physician patriot, Joseph Graham, the erudite Thos. D. Haigh and Charles E. Johnson, R. L. Payne, J. J. Summerell, and their compeers—noble leaders of an erudite profession whose lustrous fame is our most sacred heritage as well as our ever-present stimulus to more exalted ideals and nobler effort.

These noble names are engraved high in North Carolina's Hall of Medical Fame, and yet (if need be with apologies to the living), I may add that a future generation will place alongside of these fallen leaders of ours, and alike revere the names, of the courtly Henry T. Bahnson, the kindly George G. Thomas, the affable Richard H. Lewis, the tried and true friend W. H. H. Cobb, the student Francis Duffy, the careful and precise A. W. Knox, and Robt. S. Young and H. Bascom Weaver, and Edw'd C. Register, and genial David T. Tayloe will be remembered as among the strong

and forceful men of the profession who have been active vital forces in the society for years, graced the Presidential chair, and exercised a helpful influence upon the profession of our loved State.

It has been observed with apparently much truth that most human progress has been in the main in cyclic movement—an idea is advanced by a few enthusiasts in one generation, rushed to the forefront where for a time it receives much attention, later it passes to the rear of the stage unnoticed and later is unceremoniously shuffled off the stage into oblivion where it quietly rests until rescued by some worker who delves beneath the superficial area where most of us are content to dig. That this axiom is as applicable to medical organization as to other forms of human endeavor does not admit of successful contradiction. Within the one hundred and thirty-two years of our national existence there have been apparently no less than three distinct periods of activity in the medical profession—three distinct periods when the physicians of the country have shown manifest disposition to cease their fruitless bickerings, come together, and to work for the development of means and measures calculated to enlighten and educate public sentiment in such ways as will help both people and profession, and to impress ourselves *en masse* upon the body politic as possessing those admirable qualities of head and heart for which the individual members of our profession are so highly regarded.

In the period of organizing the various affairs of the only recently detached colonies of Great Britain, there was a great tendency to organize along many and different lines of human effort, and it was a very natural thing that our profession finding itself cut loose from the mother country and its medical institutions should essay the founding of medical schools and the organization of medical societies also. Following the founding of the federal government in the closing years of the eighteenth century, there was organized some five or six medical colleges and about the same number of State Societies. Notable among the State Medical Societies were those of New Jersey (organized just prior to the Revolution), Massachusetts, New Hampshire, Connecticut, New York, and on December 1, 1800, in the city of Raleigh, N. C., there was organized the Medical Society of North Carolina, with Richard Fenner of Franklin, President; Nathaniel Loomis and John Claiborn, Vice-Presidents; Calvin Jones of Raleigh, Corresponding Secretary, and Wm. G. Hill of Raleigh, Recording Secretary with Gargill Massenberg of Wake

county, Treasurer. James Webb of Hillsboro, James John Pasteur and Janson Hand were elected Censors. Steps were taken to establish at the State Capital a botanical garden in which it was proposed to cultivate and develop all herbs useful in medicine. Prizes aggregating no less than \$85.00 were offered for the best specimen of opium, foxglove, castor oil, senna and rhubarb. At the meeting in Raleigh in 1802, Dr. Osborne of New Bern, was elected President. Dr. John Armand DeRossett of Wilmington, who married a niece of David Hume, the historian, graduated from Princeton, and studied medicine under Dr. Benjamin Rush in Philadelphia, is also thought to have been a member of this first State Society. And while the records of the work of this society are very meagre indeed, yet it is known that the medical gentlemen composing it were among the very first men of their times professionally and socially, and it is evident they must have made some impression, for in the revived State Medical Society, in 1850, Dr. James Webb of Hillsboro, was, on motion of the President, Dr. Edmund Strudwick, elected to honorary membership, and his connection with the older society noted at the time. Dr. DeRossett, then a gentleman retired from active practice, and advanced in years was also elected to honorary membership. Dr. Strudwick on retiring from the chair delivered a beautiful oration in which he said, referring to the Society and profession: "Neither the apathy of friends, the cold neglect and deep injustice of legislation, and pampered quackery and empiricism can stay its onward course. True medical science will, like the majestic oak, withstand the shock and storm of every opposition. It has been beautifully compared to a star, whose light, though now and then obscured by a passing cloud, will shine on forever and ever in the firmament of Heaven." Dr. Strudwick in this address also made reference to the former organization of the State Medical Society and adjured his auditors to "see that we avoid its fate."

While the State Medical Society of New Jersey had been organized in 1766 thus antedating the Declaration of Independence at Philadelphia some ten years, and several other State societies had been organized at later dates, yet the most decided impetus to medical organization in the United States was given by the American Medical Association by its promulgation, shortly after its organization, of that most remarkable of professional documents known as the "Code of Medical Ethics." This most valuable and instructive of professional productions remained for more than fifty years, without scarce the "dotting of an 'I' or the crossing

of a "T". the universally accepted concrete wisdom of the American medical profession as to the conduct of medical gentlemen in their relations to each other and to the public. It may even be doubted if Dr. Nathan Smith Davis and Dr. H. J. Bigelow and their illustrious confreres fully realized how well they build in the construction of the "code," but unquestionably its influence in helping to keep medicine a profession and not a trade has been most beneficent, and it may well be argued that this Code of Medical Ethics has wielded an influence far beyond the confines of the medical profession. *En passant*, it is of interest to note that the American Bar Association, the great national society representative of the best interests and standards of the legal profession, has now a committee at work preparing a "Code of Legal Ethics" which is expected to be adopted at its forthcoming session for the "rule and guide of faith and practice" as regards the relations of members of that honorable profession to each other and to their clients.

That the time did come when the strong leaders of the national organization deemed its revisal the part of wisdom—as they did in 1900 and 1901—is not at all strange. The Bible itself, and the creeds of the various religious faiths have from time to time been the subjects of critical revision at the hands of their friends.

The effect of the organization of the American Medical Association in New York in 1846, along broad and comprehensive lines, the adoption of its celebrated "Code of Medical Ethics," and the wide dissemination given the latter among the medical men over the nation was indeed stimulating and helpful to the cause of medical organization everywhere. The physicians of North Carolina who were members of the State Legislature which met at Raleigh in the winter of 1848 and 1849 discussed the situation with the Wake County doctors and resolved that within themselves in association with the Wake members of the profession they would set in motion plans to organize the Medical Society of the State of North Carolina, a society to be allied with and in operation under the great national medical association, such as was already in existence in several of the States. After several free discussions of the important subject in Raleigh it was decided in February, 1849, to issue an address to the physicians of North Carolina urging the coming together at Raleigh for the purpose of organizing a State Medical Society. Pursuant to this call, on April 16, 1849, there came together at Raleigh, from seven counties outside of Wake, thirteen physicians, which with the thirteen gentlemen from

Raleigh and Wake profession, made a total attendance of twenty-six in attendance at the organization. While the attendance outside of Wake county was quite disappointing, yet after careful consideration, those present effected the organization of the Medical Society of the State of North Carolina with the following officers:

President, Dr. Edmund Strudwick, Hillsboro; Vice-Presidents, Drs. Haywood, Johnson, Williamson and Thomas; Secretary, Dr. Wm. H. McKee of Raleigh, with Dr. Wm. G. Hill of Raleigh, Treasurer.

A two days session was held during which the recently promulgated "Code of Medical Ethics" of the American Medical Association was reported by a special committee who had it under advisement, and, with the elimination of a single item, it was adopted unanimously. As indicative of the exceeding high-toned, and as might possibly be said at this time, ultra-ethical standards of these charter members of our state society in their fine conception of professional courtesies to each other in practice, it is of interest to note the eliminated article of the "Code." It reads as follows:

"In obstetrical and important surgical cases, which give rise to unusual fatigue, anxiety; and responsibility, it is but just that the fees accruing therefrom should be awarded the physician who officiates."

When I became a licensed physician in 1885, the Transactions of the State Medical Society published the "Code of Medical Ethics" of the A. M. A. as its own code, but a careful review of the Transactions of that body fails to show where or when the eliminated item was restored. I have often doubted if it really was restored, but more than likely crept into the volume in the publishing. Once in, it remained unnoticed, until at Hot Springs in 1903, (another half-century as between the 1800 and 1849 organization of the North Carolina State Society) when again following the footsteps of the parent organization, we adopted the revised code, or as it is now called, "The Principles of Medical Ethics" of the American Medical Association.

From the organization meeting in Raleigh in 1849 were appointed as delegates to the A. M. A., Drs. T. N. Cameron, N. J. Pittman, and Johnston Jones. Of these Dr. Pittman attended the session in Boston in 1849, a few days after the organization of the State Society. His report to the next session of the State Society of the trip to the meeting the great national leaders he met there, the important measures discussed, was a delightfully worded production for which he received a vote of thanks from the society.

At the 1850 session delegates from the

newly organized county societies of Hyde, Beaufort, New Hanover, Edgecombe, Mecklenburg, Piedmont, Orange, Granville, Nash and Franklin, were present, and after having the constitution of their societies examined were admitted as members. Thus, as was forcefully directed to our attention by President Knox in his admirable President's Address at Hot Springs in 1903, the earliest organization of the present Medical Society of the State of North Carolina rested on the basis of organized local societies. In effecting a reorganization at that meeting under Dr. Knox's wise leadership, we have merely reverted to primal principles, or in other words built the medical organization of the state from the foundation upward instead of from the top downward. The division of our present Society session into a House of Delegates and the General Meeting was the inevitable, logical and necessary result of activities which greatly increased our annual attendance. Should future management of the Society's affairs be such as to produce the decline of the county societies, and a diminished interest in the meetings of the State Society, a recurrence to the methods of transacting business in vogue in 1900, could readily enough be brought about. But the chief business our annual gathering together being the reading and discussion of scientific papers, and with the wealth of doctors we now have who delight in this work, it is inevitable that the General Meeting should continue to be wholly devoted to such duties. Our House of Delegates, "the legislative and business body of the Society," being made up of the elected representatives of the local profession from every section of the State, certainly gives fairest consideration of business propositions, and in voting in the various elections each unit of our great State organization votes exactly its proper and legitimate strength thus eliminating the possibility of the men within a radius of fifty miles or less of the Society's meeting place exercising undue control in the society's affairs.

There is another interesting thought in this connection that I may be pardoned referring to thus publicly, and it is this: If there exists in the minds of any of our members a yearning desire to participate actively in the "Business and legislative work of the Society" (and such desire is perfectly legitimate and honorable when methods used are not open to objection), those members must actively affiliate and fraternize with the members of the local profession in their home county society, and the wisdom of thus entrusting the affairs of the profession to the members who are active workers for

the general good of the profession in their home communities is eminently correct and proper, even if not, as has been hinted at times, wholly approved of by gentlemen who would participate actively in the "business and legislative affairs of the society" while not caring to be even connected with local medical organizations with their neighbor physicians. Parenthetically, it affords me great pleasure to observe in this connection that at no time since their re-organization in 1903 have the helpful influences of the numerous county societies upon the general welfare of the profession been more manifest than in the past year.

The Society meeting of 1850 showed itself fully alive to public as well as professional needs in advising the enactment of State legislation providing for "a general registration law for births, deaths, and marriages"—certainly a worthy suggestion, and one which after fifty-eight years is still a "long-felt want" in the minds of those who believe in the proper tabulation and collection of the vital statistics of civilized States. At the present hour this remains one of the legacies of incomplete legislation which has been handed down from a previous generation. I trust the State Board of Health will have the cordial co-operation of every member of this body in securing at an early date some much-needed enactments along this line.

The session of 1850 increased the annual dues of the State society from \$3.00 to \$5.00 and designated a committee to "report on the propriety of establishing a medical college in this State." This committee, without saying why, did not report for two years, and then advised adversely because "it was feared the best men of the profession would not give up their practice and come together in one place to teach medicine," because it was apprehended that anatomical material could not be secured in sufficient quantity, and further "because to graduate any but first-class physicians in North Carolina would be to foster a species of quackery." They also deprecated the establishing of unendowed medical colleges. Their report on the "college question" was unanimously adopted, and was strikingly similar to one presented by a committee and adopted by the Asheville meeting of the Society in 1891, the committee being composed of three young men (W. P. Beall, Frank W. Brown and J. Howell Way), neither of whom were in the least degree familiar with the action of the State Society on the same subject some forty years previously. But the professional sentiment in North Carolina as to medical colleges has undergone a change since then, and today good work is being done in North

Carolina colleges of medicines. I commend to your thoughtful consideration the suggestion that of the five hundred young men of this State now engaged in studying for the degree in medicine, at least two-fifths of them are at work in our own colleges, being taught the principles and the art of medicine in small classes by competent instructors who stress disease conditions as actually seen in our climate and environs. Without being tedious upon this theme, I wish to also note the fact that some of the most promising of the younger members of the profession are to be found among the alumni of our local colleges of medicine. Medical science knows no geographic limitations, yet it is well the profession and the people generally of the State should know the successful work the colleges of medicine are accomplishing in our own State and encourage them with our sympathy and support.

The Society also at the 1850 session passed resolutions urging the national congress to "adopt measures to improve the condition of the Medical Service of the Army and Navy"—also a resolution decrying as reprehensible "the practice of taking care of families at a stipulated price per annum." The distinguished Dr. Chas. E. Johnson, of Raleigh, at this meeting addressed the Society at length "upon the vast difference in the radiating properties of the black and white skins"—a topic about which a large volume has been recently written. I refer to these various questions before the State Society fifty-eight years ago as showing they were thoroughly alive and alert as to professional conditions and needs in both State and nation.

The influence and prestige of the State medical society grew from year to year, but not without earnest and painstaking effort on the part of those entrusted with leadership in its affairs. In 1852 a committee of Drs. J. H. Dickinson, J. Graham Tull, S. S. Satchwell, Chas. E. Johnson, and Will George Thomas as Chairman, issued a "General Address to the Physicians of North Carolina" urging their duty to assist in the organization and enrollment of all practitioners of regular medicine of the State in the county societies. In this "Address," penned by one of the State's most gifted sons and talented physicians of that century occurs the following language: "Take the earliest opportunity to join the local medical society—attend its meetings, and frequently participate in its proceedings," and later on he says:

"It is useless to argue this matter further. It is by the magic power of associated effort—the grand idea of the present age—that existing evils and errors in the profession

can be most effectually eradicated, and hence the vital importance and necessity of these medical societies. It is to the unity of design, and concentration and power of action which association in a common cause gives, that all the arts, sciences, and occupations of life are greatly indebted for the rapid strides they are making. It is giving a mighty impulse to the human intellect, as seen in the wonderful progress of the physical sciences, education, mechanics, commerce, agriculture, and the various benevolent and religious institutions of the country. It is by it your railroads are built, your banks established, your laws are made and maintained; and the very government under which you live is but the result of associated effort—it is the lever of Archimedes by which our own injured but humane and beloved profession is to be elevated."

These are forceful and vigorous words of Dr. Thomas, and it may well be questioned if, in the various and sundry dissertations, lectures, &c., the profession has listened to of late years on this vital topic of medical organization, there have been uttered more trenchant and eloquent phrases.

The State society with such magnificent leadership continued to prosper greatly, and at the session of 1860 forty county medical societies were represented, and a maximum of membership reached; but the blighting influence of fratricidal strife and the horrors of internecine war swept over our fair Southland, and it was as late as the year 1881 ere the State medical society had as large an enrollment of members as it had in 1861.

And I may add its percentage of enrollment of the active practitioners from among the ranks of the graduated physicians of the State was actually greater in 1861 than it was in any year afterwards until 1904, or one year after our re-organization at Hot Springs.

Dr. Ahuan Holmes, of Clinton, N. C., reported an ovariectomy done in 1858.

Dr. Chas. E. Johnson, of Raleigh, in 1869 published his treatise on "Insanity and its Medico-Legal Relations," dedicating it to "The members of the Medical Society of the State of North Carolina as a slight testimonial of respect for the talents and patriotism which induced you 'a gallant few' to step forward in the work of medical reform in North Carolina; of esteem for those steadfast virtues, courage and industry, which caused you to press forward amid the greatest discouragements, and almost defeat in fact, to perform the tasks of hope in the midst of despair, and of acknowledgements of disinterested friendship and for honors conferred."

In 1872 a committee of the Society form-

ulated the basic principles of the State Pharmacy Law as related to the sale of poisons, and later secured its enactment by the legislature.

Since the adoption of the Constitution in 1849 the Society has revised its organic laws at various times. In 1850, 1853, 1854, 1868, 1880, 1888, 1891, and 1893. In the latter year mention of the county societies was left out and members were elected direct by the State society without being members of, or connected in any way with county societies. All reference to delegates from county societies was omitted in the revision of 1893.

In 1903 the present Constitution, fashioned after the old original Constitution of 1849 with county societies as its basis, and in harmony with the recommendations of the American Medical Association was submitted to the Society at the Hot Springs session by a committee of Drs. J. Howell Way, Jas. A. Burroughs, M. H. Fletcher, Geo. W. Pressly, and H. A. Royster, and after a free discussion unanimously adopted. Most of the revisions have been limited to minor matters, only three vitally different Constitutions having been in existence since the formation of the State Society in 1849—those of 1849, 1893 and 1903. And I may add those of 1849 and 1903 are very similar in both design and purpose, each being based upon county societies, only the latter dividing the Society for good and sufficient reasons into two bodies, a business and a scientific section.

THE STATE BOARD OF MEDICAL EXAMINERS.

The idea of having a State Examining Board of Licensure for physicians took deep root at an early period in the history of our society, and for several sessions unsuccessful efforts were made to induce the legislature to enact such a measure, but without results until February 1859 when practically the present medical practice act was made a statute of North Carolina. The penalty clause was added in 1885, and the registration clause in 1888. In the original law the Board met annually on the first Monday of May, alternating each year between Morganton and Raleigh. The privilege of electing the Board of Examiners was vested in the Medical Society of the State of North Carolina, as at present, but an added clause read "except when the legislature chooses to exercise this right." At the Society meeting in 1869 a committee was appointed to petition the legislature to allow the "Board of Examiners to meet at the same time and place as the State Medical Society," which request was made the law.

At first a full Board of seven members

was elected for a term of six years, and at each of the five succeeding sexennial periods a full Board was elected for the term of six years each until in 1890 when it was deemed advisable not to elect an entirely new Board at each election, and three were elected for six years, two for four, and two for two years respectively. Very soon the Society again experienced a change of mind relative to this and decided to return to the full term of six years for each member of the Board, and as rapidly as it could be worked out, without changing the terms of the incumbents, the former method was restored, and in 1902 a full Board of seven were elected for six years, whose official terms all expire at this session. This necessitates an election at this session of a new State Board of Medical Examiners, a responsibility I am sure the Society will discharge in the general meeting on the second day of the session with fidelity to itself and due regard to the vital interests entrusted to its care.

In this connection I digress a moment to remind you that the cases of the State vs. McKnight and the State vs. Biggs yet remain matters of record in our Supreme Court decisions, unreversed, and in addition thereto rests undisturbed upon our statute books, the iniquitous medical sectarian legislation enacted during the session of the legislature of 1906-7 whereby the entering wedge for the disintegration of our medical license laws was made in the creation of a special board of examiners for a certain sect of practitioners. There is absolutely no more excuse or reason for the existence in North Carolina of a special board of medical examiners to examine and to certify to the professional capacity of medical practitioners of electrotherapy, or hydrotherapy, or rhinology, or ophthalmology, or any other special method or theory of practice, than there exists the necessity for a special examination before the Supreme Court of attorneys applying for State license upon particular methods of professional procedure in practice, about which even the best lawyers may have diverging views, as in land titles and conveyancing, or railway practice, or criminal procedures. Hence I must say, I deem it the duty of every high-minded practitioner of medicine in our State to feel that there yet exists a stigma on the science of medicine in North Carolina, irremovable, until the last vestige of sectarian medical practice legislative enactment is erased from our statute books; and all individuals essaying the practice of the diagnosing and healing of sick men and women and children are required to stand the same examination upon the formation, nature, character, and

diseases of the human machine they propose to treat when its physiologic function is disturbed. Minor differences of method in practice or theory of the same are immaterial, and should never have been permitted serious consideration by the lawmakers, and the fact that such legislation was ever enacted for the benefit of less than a couple of dozen practitioners, constitutes a monumental disgrace to our alertness, and affords a most striking illustration of how easy it is to secure ordinarily special legislation if its promoters are only active and insistent.

From this experience we should take warning, and in future years have the profession in the county societies full and early advised of all such attempted improper medical legislation in order that they may have the opportunity to exert the proper influence upon their home members of the legislative body.

PRELIMINARY EDUCATION FOR MEDICAL STUDENTS.

This vital subject has engaged the attention of this society for more than fifty years, and is still in an unsatisfactory condition; but we should institute active efforts to secure its early and correct adjustment at the hands of the next session of the State legislature. With a medical college course of four years professional training, and the added fifth year of practical hospital work which more than a third of the recent medical graduates are securing ere they begin practice, the lamentable fact yet remains that from 20 to 30 per cent. of all applicants for State license in North Carolina fail in their examinations, and the percentage of rejections remains as high as it was fifteen and twenty years ago. That our excellent Board is rejecting more applicants than it should properly do, I do not for one single moment believe. Always the personnel of this Board is high, and its members actuated by conscientious purpose to perform its laborious duties for the best interests of the public. But there is something radically wrong in that the percentage of rejections continue so high; and an experience of several years as a member of that body, participation in the examination of some hundreds of young physicians, a critical study of the records of the Board from 1859 to date, coupled with observations of similar work in other States, convince me that our State Board of Medical Examiners is only doing its duty in rejecting so large a percentage, and that the remedy is not in their hands, but in ours, to secure at the hands of the legislature added enactments prescribing a standard of entrance requirements for students of

medicine matriculating in the medical colleges of this State and also apply it to all physicians applying for examination for State license in North Carolina. The adoption by our lawmakers of such measures would immediately serve notice upon the young men of this and other States, that they must fit themselves to begin the study of medicine before doing so, else they will have difficulty in securing license to practice. Of course efforts to secure such added legislation would encounter the usual pleas of consideration for the young man of limited means, &c., but I am convinced that a careful study of the experiences of our Board with educated and poorly prepared applicants, and a proper appeal to the intelligence of our legislators would result in the needful addition to our statutes, thus adding the crowning complement to the statute of 1859. I commend to your careful consideration this matter, and suggest a careful re-reading of the President's address to this body in 1906, in which address the subject was most intelligently discussed.

OUR RELATIONS TO THE AMERICAN MEDICAL ASSOCIATION AND ITS JOURNAL.

Receiving from the great national medical association, as it appears North Carolina physicians did receive the impetus leading to organization of the State Medical Society in the few years following the promulgation of the Code of Ethics, it was most natural that our State Society should have felt kindly inclined to the A. M. A., and it is very evident from an examination of our early records that up to the time of the War of Secession the relations between the two organizations and their members were most cordial and sympathetic.

In the post-bellum period there was a disinclination on the part of our State Society leaders, or apparently such was the case, to have much to do with the affairs of the national association. I may be permitted to observe that I have thought there was still in existence a bit of this same sentiment, though not so strong and assertive as formerly. Meanwhile the A. M. A. leaders have manifested a pleasingly truly national spirit, each of our sister States Virginia and Tennessee have had its Presidency within the past three decades, while its honors and its opportunities (with the single exception of the Vice-Presidency which most worthily fell upon the great O'Hagan a few years before his death—and Tennessee has had that again since then) have gone to other States whose profession possessed no greater ability than ours, but whose leaders were more in sympathy with the work of the national association.

When we fully realize the truly great and

beneficent labors for the elevation of professional work and standards along so many different lines in which our great American Medical Association is at the present time very properly engaged, our attitude can but be one of sympathy and support for who can better, or so well, do this work, than the properly accredited representatives of the great organized national medical profession? And it affords me much pleasure to here record the fact, as such I believe it to be, that the very great majority of the reading, thinking members of our profession in this State, are in hearty sympathy and cordial accord with the numerous lines of advanced professional effort now engaging the attention of the leaders of this great national association.

While only a decade past there were scarce two score of physicians in our State who were members of the A. M. A., and they were in the main residents of a certain section of the State, it is suggestive of another milestone of progress passed to note that the present membership of the national association in North Carolina is almost actually equal to the entire membership of the State society six years ago. And its great weekly journal, one of the most ably conducted and admittedly the most widely circulated and read of any medical journal on the face of the earth, is found paying its weekly visits to the offices of almost one-half of the members of this State society. This is as it should be, for while there will always be an appropriate and a fertile field for the privately owned medical journal, the necessities of the times imperatively demand that an organized national profession shall keep certain matters of concern before the guild and conduct certain lines of general work for the profession at large, and in the proper development of these things a great national medical magazine published at frequent intervals is a necessity. Differing as I may, and have, done at times with the policy of the present management of the Journal of the A. M. A., I must in simple justice to all concerned say the American Medical Association, and its great journal, is successfully accomplishing things for the betterment of the profession and the people of America—and things which without a great organization like it could never by any possible means be done—and it merits and should receive the earnest support and practical assistance of every member of our profession in this State.

MEDICAL JOURNALISM IN NORTH CAROLINA.

From the organization of our State society in 1849 to date, our annual transactions have been issued in one annual volume. At first this was only a modest pamphlet of

a few pages, later it evolved into a stout volume with paper covers, still later it assumed the dignity of a well bound volume and in later years the prolificity of our membership had necessitated the issuing of a portly and massive octavo. This method of publication of our transactions can, it is very doubtful, ever be improved upon. Certainly a neat bound volume is cared for more and preserved with far greater certainty than would monthly issues of a State journal of medicine issued by our society, and I have but to commend the wisdom of our society in adhering to our original plan of publication rather than embarking on the dubious experiment of attempting to run a State medical journal as is being done with more or less success by several of our sister State societies. A glance at the progress of medical journalism in North Carolina is of interest in this connection.

In 1856, just seven years after the organization of the State Medical Society, an agitation began in the membership for the establishing of a North Carolina Medical Journal which could also print the transactions of the Society in its pages, and 125 subscriptions were obtained. The whole matter was referred to Dr. Will George Thomas for report to the session of 1858. At the same time Dr. Edward Warren was elected editor in the event sufficient subscribers were pledged to sustain the undertaking. In 1858 Dr. Warren reported the securing of 300 subscriptions, but still lacking at least 100 regarded as essential to success, he advised against undertaking the publication and tendered his resignation as editor. After considerable discussion, Dr. Warren was continued as editor and the society pledged its financial support to the extent of defraying the necessary expense of the North Carolina Medical Journal which was thus launched upon its career of future usefulness and helpfulness to the society and the profession in this State especially. In 1860 Dr. Warren was succeeded as editor by Dr. Chas. E. Johnson, of Raleigh, who with Dr. S. S. Satchell, of New Hanover, conducted the journal until November, 1861, when its issue ceased. After the spring meeting of 1861 the State Medical Society did not meet again until June 6, 1866, at which time it was advised of "the entire loss of the books, accounts and other equipments of the 'Journal' during the occupancy of Raleigh by the Federal troops." It promptly levied an assessment of \$4.00 on each member to pay the debts of the Journal and recommended its revival. The following year the assessment was placed at \$3.00, but it was several years ere the entire "war-debt" of the Journal was paid. In the meantime

the State Society continued as it has wisely on to the present day, the admirable system of issuing an annual volume of transactions more certain of preservation and ready of reference.

In 1877 Dr. Thos. F. Wood, of Wilmington, with Dr. M. J. DeRossett, revived the North Carolina Medical Journal as a private enterprise, and while conducting it from then until the time of his death, the Journal was never again the property or the liability of the State Society, whose only active interest in it was a vote of confidence making it the Society's "official organ," and wishing its distinguished editor every success. Dr. Thomas Fanning Wood was one of the greatest physicians North Carolina or the nation has ever produced—a man of rare and varied attainments, an incessant worker and an indefatigable investigator, a learned botanist, a scientific pathologist, a skilled practitioner of medicine greatly beloved by his clientele, a wise and efficient organizer of men and things, a talented and versatile writer, and with all these accomplishments he was, best of all, a most accomplished and lovable christian gentleman without taint of cant or hypocrisy in his thought, word or deed.

Under his able editorship the North Carolina Medical Journal soon became an established institution of medicine in North Carolina, and I do not exaggerate when I say its helpful influence extended beyond the confines of the State and of the nation alike, and its brilliant and lovable editor became favorably known in every clime where English periodicals were read. Its book reviews were of rare and notable excellence, surpassing in thoroughness of analytic conception and critical review those of every other English speaking State or nation except two—the British Medical Journal and the old American Journal of the Medical Sciences. For a number of years prior to his death in 1892, Dr. Wood enjoyed the valuable editorial assistance in the work of the Journal of Dr. Geo. G. Thomas, who contributed greatly to enhance the usefulness and success of the periodical. Subsequent to Dr. Wood's death in 1892 the Journal came under the editorial control of Drs. J. Allison Hodges and Robt. D. Jewett, who successfully managed its affairs until its removal to Charlotte several years ago, since which time it was conducted by a staff with Drs. W. H. Wakefield, J. D. Roberts, H. A. Royster and W. O. Nisbet editors. In 1901 the relationship of the North Carolina Medical Journal to the State Medical Society as "the official organ" was by vote of the Society abolished. In 1908 it merged its identity into that of the Charlotte Medical Journal, and the two journals

are now published and known as The Charlotte Medical Journal. In 1892 Drs. Edward C. Register and John C. Montgomery, of Charlotte, began the publication of the Charlotte Medical Journal, Dr. Montgomery retiring some ten years later. Starting out the journal essayed the task of not only being a first-class North Carolina State Medical Society Journal, giving much consideration to the special affairs of the profession in this State, but aspiring as well to become the leading exponent of Southern medical literature. A comparison of the make-up of the various journals of the Southland, with a look into the American Newspaper Directory will at once satisfy the curious that both ambitions have been accomplished by its talented editor. A strong and influential leader of the profession in his city and State, it has been the pleasure of this society to honor him at various times and in divers ways, he has never sought for his journal the endorsement of the society as "its official organ," or other adoption at our hands, hence it is pleasant to here note that its columns and its editorial pages have alike at all times in devotion to the interests of this society rivalled that of any of the State-Society owned journals—and this friendly assistance and support has been freely accorded without price or society financial liability upon our part. During the present year the merging of the old North Carolina Medical Journal in the Charlotte Medical Journal, with the added interest and energy of the older publication, we have the satisfaction of knowing our State is leading the Southland in the realm of medical journalism.

THE STATE BOARD OF HEALTH.

Like the State Board of Medical Examiners, the North Carolina State Board of Health is the legitimate child of this society, and as such well deserving of the fullest support and consideration at our hands at all times. For several years prior to 1877 the society discussed the advisability of securing legislation establishing a State Board of Health, but the legislature declined to enact the needful statute or make the all-requisite appropriation. In that year, however, the efforts of the societies' committee succeeded, and the legislature of 1877 made an appropriation of one hundred dollars for the use of the Board and authorized the State Medical Society to assume the functions of a State Board of Health for North Carolina. This duty the society prepared to discharge by electing a Board at the session of 1877, which was promptly organized by the election of Dr. S. S. Satchwell, President, and Dr. Thos. F. Wood, Secretary and Executive officer.

Two years later the legislature decided to have the Governor select a portion of the State Board of Health, and this bipartite responsibility has continued to be discharged conjointly by the Governor and the Society in harmony.

The appropriations have been increased from time to time, and while not as yet sufficiently large to enable the Board to accomplish the work desirable to be done, yet it is very doubtful if the State of North Carolina receives so large returns in practical value for any of its money appropriations as accrue from the work of the State Board of Health. At the same time while felicitating ourselves upon what has been done, it is emphatically advisable, and our professional duty as well, to bear in mind that much more work is needed in this State by the Board of Health and along other lines of effort before the opportunities afforded us to help promote the public health will be met as completely as the knowledge of modern medicine enables us to go, or as fully as other States are working on lines of public health just now. Take as a single illustration the monthly Bulletin of the State Board of Health. An enlightened legislative conscience should promptly provide means to enable it to be developed into a popular journal which would seek to educate both doctors and public in the principles and practice of modern public and private hygiene. It should have a wide circulation and contain articles on popular scientific medicine which would serve the useful purpose of affording our people the opportunity of securing some knowledge of real modern medical science thus serving to effectually antidote the vagaries and inaccuracies, not to mention the down-right and palpable untruths, circulated among the laity through the newspapers, through pseudo-scientific magazine articles, the "patent medicine" almanacs, *et id genus omne*. If the department of agriculture issues periodical information relative to the plant and animal diseases, why not a department of health supplied with ample funds to do at least as much for the betterment of the human body?

On other lines we need work, and we need money to do it with. The sister States on either side of us are appropriating public funds with much more liberality to the development of their State Boards of Health work, and gentlemen, I point it to you as one of your professional publicist duties to cultivate a public sentiment which will demand such action at the hands of our legislators even though the levy for State purposes should exceed forty-three cents! Respect and reverence for the memory of a great and good man, Dr. Thos. F. Wood,

will not permit my passing from the consideration of the work of the State Board of Health and our relation thereto, without referring to the fact that from its first inception until the day of his death in 1892 he continued its active, zealous, working Secretary, building something where nothing had been before and leaving us the heritage of a rich example fruitful with great accomplishment. His mantle fell on most worthy shoulders in the person of our present estimable Secretary, Dr. Lewis, who has for fifteen years past been building on the foundations so well laid by Dr. Wood. But it is well for us all to bear in mind the fact that as yet the actual work of our State Board of Health as related to the magnitude of the problems before it is but merely begun, and its successful development and realization hold many problems for the future to solve, and in their adjustment the membership of this society will naturally exercise most vital parts.

HONORARY MEMBERS AND HONORARY FELLOWS.

I would respectfully call your attention to the fact that while our constitution provides for Honorary Members and Honorary Fellows, that none have been elected for a number of years past. The list of Honorary Fellows which stood at twenty one, the maximum of attainment during our history, some ten years ago has had no additions made to it while deaths have reduced it to fifteen members. Certainly this list, which is composed of members of the society "who have been members of this society continuously for thirty years, and whose dues have been paid during that time" should be added to at this session, and their names appear at the proper place upon our "roll of honor," in the forthcoming volume of transactions.

The attention of the House of Delegates is invited to this matter of simple justice to those who have borne the burden and heat of the day for the score and a half of years past, and whose general standing and professional attainments warrant this vote of confidence and esteem by this society.

DEATHS DURING THE YEAR PAST.

Since the annual meeting of this society at Morehead City in June, 1907, twenty-three members of the component county societies of this body have completed their earthly course and passed into the presence of the Great Physician above. Our Obituary Committee will during the session render fitting report thereon. In our necrological list for the year will be found the names of three distinguished former Presidents of the State society.

Dr. Joseph Graham, of Charlotte, was a

member of the State Board of Medical Examiners from 1878 to 1884, and presided over this society at the thirty-third session held in New Bern in 1886. He was most highly regarded in the city of his life work, as well as throughout the State, and appreciated as a wise and learned physician as well as a useful and patriotic citizen.

Dr. Thomas D. Haigh, of Fayetteville, was a confrere of Dr. Joseph Graham's on the State Examining Board, serving alike with him the six-year term from 1878 to 1884. Dr. Haigh was elected President of the Society at the Charlotte meeting in 1887 and presided at the session in Fayetteville the following year. A handsome scholarly gentleman possessing a cultured mind and thoroughly grounded in the principles of his chosen profession the success that came to him was but his merited reward.

Dr. Patrick Livingstone Murphy, of Morganton, served the State and the profession as a member of the Board of Medical Examiners from 1884 to 1890, and at the Winston-Salem meeting of the society in 1896 was honored with the Presidency of the organized medical profession of his State, occupying the chair at the Morehead City session in 1897. But his great life's work by which his name will be best remembered in North Carolina during the generations to come, was his successful labors in caring for the mental unfortunates of this State during the quarter century of his incumbency of the Superintendency of the State Hospital for the Insane at Morganton—a record of which every citizen as well as physician of this State is justly proud, and one which will remain a permanent part of the States' history so long as the duty of the strong helping the weak is a tenet of our civilization.

It was my good fortune to know personally each of these three eminent Carolina gentlemen and physicians, and reviewing at this date their professional careers, I am most profoundly impressed with the great love and genuine heartfelt affection each of them bore this society, and the confidence they cherished in its influence and work in the upbuilding of professional characters and standards in North Carolina. Regular attendants upon its annual meetings, active and interested participants in its every work, firm believers in the exalting and ennobling influences emanating from professional contact, faithful exponents of the best in our art, their labors are ended and their records on earth completed. In the coming years no history of North Carolina men of medicine will be complete without the names of Graham, and Haigh, and Murphy. Immediately following the notice of the death of these distinguished

physicians, I communicated with their respective families and agreeably to them arranged for the preparation of a suitable memorial of each which will be presented to you during the session. In conclusion, permit me to express my thanks for the kindly patience you have exercised in listening to these random observations of mine relative to the society whose every interest is dear to every one of us. She needs no encomium at my hands, no praise or eulogy from yours; but service, work, enthusiasm in the cause of scientific medicine, faithful and loving devotion to higher ideals and loftier conceptions of the true physician's life—these are demanded of each of us. These we must exemplify in our lives if we are to prove worthy successors of the noble men of the past whom I have referred to here today. And these sacrificial offerings we shall bring to the altar of the grand old Medical Society of the State of North Carolina in fond anticipation of exalting her ideals and her standards as the years pass on. I thank you, I thank you.

The Surgical Treatment of Gastric and Duodenal Ulcers: With Report of Cases.*

By Gaston Torrance, M. D., Surgeon to St. Vincent's and the Hillman Hospitals, Birmingham, Alabama.

Rydygier in 1881, was the first surgeon to operate for gastric ulcer, he successfully resected a large ulcer of the posterior wall of the stomach.

VanKleeef had a case the same year and a year later Czerny also had a successful case.

Doyen in 1893, introduced gastro-enterostomy for this condition and in 1895 reported a series of cases at the German Congress attributing the relief or cure of the ulcer to the rest induced by the operation.

Peterson of Heidelberg did the first no-loop operation in Czerny's clinic in 1900, using a Murphy button.

Dr. Chas. H. Mayo, in October 1903, did the two first no-loop operations with the clamps and suture making a longitudinal incision in the gut.

The Mayos began using the no-loop method as a routine in 1905.

Gastric ulcers are found at all ages from infancy to extreme old age.

Bissett reported a case 45 hours old which perforated.

Goodhart had a case 30 hours old.

Lister and Spiegelberg report ulcers in children 3 and 4 days old.

Moyulian reports an ulcer in a child 17

*Read before The Medical Association of the State of Alabama at Montgomery April 21-24, 1908.

months old and his oldest case was 73 years of age.

Frequency of Ulcers.—Heretofore the ratio of ulcers has been placed at about ten gastric to one duodenal but Mayo in 200 cases (1905-1907) found 87 gastric and 98 duodenal and 15 were independent ulcers of each viscus, showing that they are quite as frequent in the duodenum as in the stomach. He finds that the duodenal ulcers are much more frequent in men, 77 cases to 23 in women, but of the gastric ulcer there were 52 men to 48 women. He finds that 80 per cent. of all gastric ulcers are located in the pyloric end.

Classification.—Mayo divides ulcers of the stomach and duodenum into two classes:

I. The indurated or calloused ulcer, which can be seen and felt during operation, on account of the scar tissue. He says "all of the positive advances in surgical knowledge concerns this group." He finds that 87 per cent. of the duodenal and 70 per cent. of the gastric ulcers belong to this class.

II. The non-indurated mucous ulcer which cannot be identified from the outside of the stomach or duodenal wall and it is with great difficulty that it can be recognized after the viscus has been opened. He does not consider these operable cases unless there are complications as perforation, hemorrhage or obstruction.

Mayo-Robson and Moynihan also group them under two heads:

I. Erosions as described by Dieulafoy:

(a) Simple erosions, consisting apparently of mere abrasions of the surface epithelium; they may be scarcely perceptible to the naked eye, but in some cases give rise to severe hemorrhages.

(b) Exulcerative simplex—the surface layers are removed so that the arterioles running under the muscularis muca are exposed. These ulcers may give rise to terrible hemorrhages, proving rapidly fatal unless controlled by treatment.

II. Simple ulcer of which Cruveilhier has described two kinds:

(a) Acute round ulcer which is most frequently found in women, often chlorotic young women, and may be complicated by severe hemorrhages and perforation.

(b) The chronic form, irregular in outline, associated with thickening of the edges and frequently found in men; according to Seymour Taylor 72 per cent. males to 27 per cent. females. Robson and Moynihan have found them equally as often in women as in men.

Duodenal Ulcers.—Moynihan had operated on 114 cases of duodenal ulcers up to 1907 with 11 cases of perforation and in two cases there was an hour-glass stomach.

The ulcer was located in the first part of the duodenum in 107 cases and in the second or junction of the first and second in 7.

Collin collected 262 cases, in 242 cases the ulcer was in the first; 14 in the second; 3 in the third; and 3 in the fourth part of the duodenum.

Perry and Shaw collected 149 cases with 123 in the first; 16 in the second, 2 in the third and fourth and in 8 cases they were scattered.

Moynihan found gastric ulcers in 40 per cent. of his cases and thinks this is the primary condition.

Etiology.—Ulcers have been produced experimentally in animals by injuring the mucous membrane of the stomach and producing an anemia by bleeding.

Silbermann produced hemoglobinuria and found that ulcers formed at the seat of injury of the mucous membrane.

Some consider the excess of hydrochloric acid responsible for the ulcer formation.

Robson and Moynihan consider hyperchlorhydria rather in effect than a cause and when found indicates in their experience, the presence of a gastric or duodenal ulcer, they say "in our experience hyperchlorhydria has never existed without ulcer of the stomach or duodenum or both."

Van Ijzeren claims to have produced the various forms of ulcer found in man by dividing the pneumogastric nerves below the diaphragm in rabbits.

Robson and Moynihan consider them septic in origin and claim that oral sepsis is responsible for a large number of cases and cite the poorer classes who pay little or no attention to their teeth, "mild sepsis leads to gastritis, then to hyperchlorhydria, which in turn provokes and keeps up ulceration."

Mr. Bruce Clarke reports the case of a sailor 55 years of age who came under his care in November, 1904, with ulcer of the stomach for which he had been under treatment for six years; just six years before he had been shipwrecked and spent sixteen days in an open boat before he was rescued, he suffered from exposure and had only mouldy, maggoty bread to eat and putrid water to drink; two days after being rescued he had violent pains in the abdomen and vomited everything he took for five days; the vomitus was at first yellow and then became black; he has never been well since this time and previous to this he had been in perfect health and could eat any thing he wished.

A. Gohn reports four cases due to a pneumococcus; Jensen had three perforating cases due to the same infection, and Bruenner found a pneumococcus in four out of 22 perforated ulcers.

Dudgeon and Sargent have found a strepto-diplococcus in nine cases.

Pathology.—As a rule the acute ulcer is round and has the appearance of being punched out—its walls are not infiltrated and does not usually show much evidence of granulation. Its general appearance is that of a cone with the base towards the mucous surface. The mucous membrane is normal up to the margins of the ulcer.

The chronic ulcer is often large, irregular in shape, margins hard, indurated and infiltrated and the base shows evidences of cicatricial processes. The peritoneal coat may be thickened and adherent to the liver, pancreas or some other viscus, and these in some cases form the floor of the ulcer. The mucous membrane for some distance around the ulcer is thickened and infiltrated.

Symptoms.—Mayo-Robson says, "the special symptoms of ulcer of the stomach are pain, vomiting and hematemesis, but I have seen and operated upon quite a number of cases in which pain had not formed a prominent symptom, in which hematemesis had been entirely absent, and vomiting had not come on until stenosis of the pylorus had produced dilatation."

"The pain is usually referred to the epigastrium, whence it may radiate in various directions, though generally it is towards the left subscapular region. Food usually increases the pain and the time of onset after food is frequently indicative of the site of the ulcer. If the ulcer be near the cardia or along the lesser curvature the pain usually comes on immediately or within half an hour of food. If it be at or near the pylorus it may be delayed from an hour to two or three hours after eating, whereas if it be in the duodenum it may not occur until four hours after a meal, and in that case it is almost invariably relieved by food. As digestion is frequently delayed in the evening, pain of this character has a habit of waking patients at midnight or later, so that in chronic cases a glass of milk will be regularly placed by the bedside in order to relieve the expected discomfort."

"Epigastric tenderness is usually well marked and is frequently associated with rigidity of the recti; it may be strictly localized or widely diffused. A special tender point is often found in the back a little to the left of the spine, opposite the ninth and tenth dorsal vertebrae.

"Vomiting is a frequent symptom of ulcer of the stomach and as a rule, it gives immediate relief by removing the food and the acid contents of the stomach. In some cases vomiting is a very serious symptom, leading to profound inanition and utter inability to take or retain food; but in others

vomiting is not a marked feature of the disease. Although gastrorrrhagia is present at one time or another in the greater number of cases, it does not always show itself as hematemesis or melena, and may only be rendered evident by a microscopic examination of the alvine excretions."

Symptoms of Duodenal Ulcer—Moynihan gives the following as symptoms of duodenal ulcer: after food is taken the patient is free of pain for an hour or two; in from one and a half to four hours after meals an uneasiness is noticed in the upper part of the abdomen, a burning, gnawing sensation develops, with a bitter taste in the mouth; there may be eructations of food or gas, bitter and acid in taste. The pain gradually increases and may be relieved by belching or pressure.

As the pain gets worse it may radiate around the right side of the chest or strike through to the back to the right of the mid line. Patients discover that taking food will relieve them and often keep a glass of milk or some other food by the bed to be taken during the night.

When a meat diet is used there is a longer period of freedom and frequently they will eat a heavy meal of indigestible food for the same purposes. These patients always have a good appetite.

Treatment.—All agree that gastric ulcers should have a thorough medical treatment and should this fail then the case should be seen by a surgeon. Mayo-Robson quotes Loube as saying that one-half or three-fourths of all cases of gastric ulcer will be cured by four or five weeks of medical treatment, but if not cured in that time they will not be cured by medical treatment alone; and says he thoroughly agrees with him in this statement.

Moynihan thinks medical treatment is much less beneficial in duodenal than in gastric ulcer and considers it a much more serious disease with greater liability to hemorrhage and perforation.

Indications for Operation.—Hartmann gives the following as operative indications: Pyloric or medio-gastric stenosis, small repeated hemorrhage adhesive peritonitis, con-complicated ulcer which has not been benefited by medical treatment, and especially if the pyloric syndrome be present, and says further that there is no debating the fact that perforation and perigastric abscess are imperative indications for operative treatment.

Operation.—The operation of choice is a no-loop gastro-jejunostomy after Mayo's method resecting the ligament of Treitz when abnormally developed as recently suggested by Mayo. In this operation the direction of the jejunum, after the anasto-

mesis with the stomach passes off to the left. While visiting Moynihan's clinic in England, soon after Dr. Mayo reported this operation, I had an opportunity to discuss this point with him, he said that he was doing a very short loop operation and allowed the jejunum to point downwards instead of to the left and in a recent paper (*Annals Surgery*, April 1908) he still contends that this is superior to Mayo's method in the majority of cases. Excision of the ulcer has been recently advocated by Moynihan also by Gauthier and Riviere who report ten cases and say that excision alone obviates all danger of hemorrhage, pain, perforation and malignant degeneration.

Marchetti claims that ulceration is due to injury of a branch of the vagus and that treatment should aim at restoring the function of the nerve, i. e. excision of the paralyzed branch.

Mayo says that the saddle ulcer of the lesser curvature, if it does not interfere with drainage, should be excised if practicable. He reports 14 cases of excision, six of the lesser curvature and eight with pyloroplasty and gastro-duodenostomy, without a death.

Kräenlein, Linossier, Doyen and many other continental surgeons think excision should be done only in exceptional cases.

Pyloroplasty according to Mayo has a very small field of usefulness. It is considered obsolete by many of the German surgeons.

In perforating ulcer, the perforation should be sutured up and if the patient is strong enough, a posterior gastro-jejunostomy should be done, the abdomen thoroughly flushed out with hot saline and drained through a stab above the pubis, for a few days, in the exaggerated Fowler position.

Treatment of Hemorrhage.—Kräenlein stated at the Congress of German Surgeons in 1906, that where hemorrhage had occurred shortly before operation, it had ceased immediately after gastro-enterostomy in 8 out of 11 of his cases.

Mayo has not found gastro-jejunostomy satisfactory in acute hemorrhage and has sutured or excised the bleeding point in a number of cases with more satisfactory results. In the chronic hemorrhage and especially where the ulcer is located in the pylorus or duodenum, gastro-jejunostomy has given excellent results.

Moynihan has operated on 33 cases for severe hemorrhage with 18 per cent mortality; there was no hemorrhage after operation; gastro-enterostomy was done in all cases; the ulcer was excised in 2 cases; in 8 cases the ulcer was infolded; in one case he infolded both the ulcer and the pylorus.

Tuffier says it is better not to operate in profuse hemorrhage of simple ulcer.

Monprofit says we must distinguish between the abundant hemorrhage for which surgical intervention is so grave that it must not be attempted and the small and repeated hemorrhages that are benefited in a surprising way by operation.

Relation of Ulcer to Cancer: As from 50 per cent. to 75 per cent. of all cases of cancer of the stomach originate in ulcers, allowing these old cases of chronic indigestion to go on without consulting a surgeon can be justly compared with not calling in a surgeon in a case of appendicitis, as was recently suggested by my colleague Dr. Jordan.

Results.—Mayo reports one death in 135 no-loop operations, and says that more than 90 per cent. of the patients suffering from gastric and duodenal ulcers that have undergone operation, have been cured.

Moynihan in 273 gastro-enterostomies for perforations, hemorrhage, pylorectomy and chronic ulcers had 17 deaths, a mortality of 6.23 per cent or less than one per cent in simple ulcer cases.

Mayo-Robson in over 500 operations including perforations, etc., had a mortality of less than one per cent in all of his private cases.

Hartmann says that in gastro-enterostomy performed under good conditions the operative mortality is almost nil.

The late results are good and should the patient again have ulcers from errors in diet, these heal far better with medical measures than they would if surgical intervention had not previously been resorted to.

He advises having all cases referred to a physician for a diet, etc., as a post operative measure.

Moynihan advises keeping all cases on a limited diet for at least three months and suggest giving an alkaline bismuth mixture where there was a very acid condition of the stomach previously existing.

Report of Cases.—The following cases will illustrate the conditions and treatment outlined above.

Case I.—Perforating Gastric Ulcer; Closed by Suture; No-Loop Gastro-Enterostomy; Recovery.

I saw this case with Dr. Parke on January 5th, 1908, about an hour after perforation. Giving the following history: she had eaten a hearty meal about eight hours previously and had been out during the afternoon for a walk of two or three miles and came home feeling better than usual; during the evening some one came in with a dress suit case filled with books, weighing about fifty and she lifted it up from the floor to test her strength and immediately felt

some unusual soreness in the region of the pylorus and went back to the library and "curled up" in a Morris chair; in about ten minutes she felt a sudden sharp pain instead of the soreness which she first experienced, vomited and had severe rigors; the pain continued but was somewhat relieved by morphia.

The vomitus contained no blood but consisted of the meal taken eight hours previously, in an undigested state.

When I saw her her pulse was 96 and temperature normal; there was marked tenderness and pain over the epigastrium with considerable rigidity of the recti.

From this and the following history I made a diagnosis of perforating gastric ulcer at or near the pylorus and advised immediate operation.

The following is the history previous to perforation:

Mrs. K., age 29, states that she has had digestive trouble since she was 12 years of age, and at times had severe pain in the epigastrium—has always had ulcers in her mouth. Between the age of 14 and 18 while away from home at boarding school she had very little digestive trouble. Menstruation had always been normal; she has been married 7 years; has 3 children, oldest six and the last confinement occurred seven months ago; she has not been well since this time.

She had some digestive trouble after the birth of the first child, ulcers in the mouth and pain in the epigastrium. For the past three months her digestion has been poorer than ever before, she has again had large ulcers in her mouth; sour condition of the stomach and had been taking soda to relieve it; there has been considerable distension with gas; pain from one to three hours after meals and worse in the evenings after dinner; vomiting; there has been a continuous soreness and she has not been able to wear her corset for about two months; constipated; has lost about ten pounds in weight.

Two hours after perforation her pulse was 120 and a blood count made after being placed on the operating table, three and a half hours after perforation, showed 15,000 leucocytes and another made 24 hours later showed 9,500.

Under ether, an incision was made in the median line extending about an inch below the navel; as soon as the peritoneum was opened the contents of the stomach were ejected through the wound, the perforation coming into view immediately; it was a round punched out ulcer about the size of a lead pencil and was located just over the pylorus, the tissues around the ulcer were very much indurated for half an inch or

more and when I introduced the first sutures to close the ulcer they cut out; I put in three rows of linen before getting beyond the indurated area and this narrowed the pylorus so much that I decided to do a no-loop gastro-enterostomy, this prolonged the operation about forty minutes but the patient left the table in good condition. A drain was passed down beneath the liver and another through a stab above the pubis, after flushing the abdomen with hot salt solution.

There was considerable drainage for several days, a modified Fowler position being used. She was badly constipated at the time of the operation and high enemata did not seem to relieve the condition much and on the third day her pulse became rather irregular and she showed there was an autointoxication, being drowsy and rather stupid; the urine showed a trace of albumin and a few narrow granular casts; this all cleared up as soon as the bowels were moved.

Sterile water was given by mouth on the second day and salt solution was given by enema just after the operation and was kept up until we felt safe in allowing her to drink freely.

No food was given by mouth until the fifth day on account of the constipated condition of the bowels and then only such food as had been sterilized by heat.

Her temperature did not go above 99 F. and her recovery was rapid and uncomplicated. She is perfectly well now, three and a half months after operation. Her diet has been somewhat restricted as suggested by Mr. Moynihan.

Case II.—Rupture of Gall-Bladder; Severe Hemorrhage from Gastric Ulcer; Obliterating Appendicitis; Cholecystectomy; Mayo's No-Loop Gastro-Enterostomy, Resecting the Ligament of Treitz; Appendectomy; Recovery.

Mr. S., a gentleman 58 years of age, was seen in consultation with his son a practicing physician, on January 27th, 1908, and the following history was elicited: His father who had had stomach trouble all his life died from the effects of this condition at the age of 60 and one aunt died of cancer of the stomach at 74. Except for a tubercular history there was nothing else bearing on his case.

Between the age of 18 and 35 he had several hemorrhages and was thought to have tuberculosis; since that time he has grown stronger and has enjoyed very good health except for some digestive trouble at times. For the past year he has had an attack of acute indigestion on an average of about once a month; has severe pain the epigastrium lasting for two or three hours, with

nausea and vomiting; has never vomited blood; has considerable gas distension; sour stomach; water brash; has lost 45 or 50 pounds in the past year, due chiefly to a restricted diet and confinement; has had a slight rise of temperature at times. He is always troubled with the gas distension and epigastric pain whenever anything heavier than a semi-solid diet is taken.

Examination.—There seems to be no enlargement of the stomach nor any distension, some tenderness over the pyloric region no tumor; some tenderness over the region of the gall-bladder; liver, heart and lungs negative; urine negative; slight icteroid color of the skin; conjunctivæ slightly yellowed for the past few days and during this time he has been very much depressed; pulse 60 full and rather tense.

Owing to inability to pass the stomach tube no satisfactory test of the stomach contents has been made, a test meal was given but had to be diluted to induce him to vomit; a test of this vomitus showed an absence of hydrochloric and lactic acids.

The following day while straining at stool he experienced a sharp pain in the epigastrium, vomited a considerable amount of clotted blood, became collapsed and continued to have severe pain in the upper abdomen and was partially relieved by the hypodermic injection of $\frac{3}{8}$ grain of morphine. I saw him two hours later and made a diagnosis of perforating ulcer of the duodenum and advised immediate operation. His pulse at this time was 110 and temperature 101 F.

He was taken to St. Vincent's Hospital and after making a blood count which showed a leucocytosis of 14,500, operation was begun four hours after perforation. His temperature had risen another degree but the pulse was practically the same and of good volume.

Under ether, an incision was made in the mid line extending down to the navel; some yellowish fluid was seen to well up into the wound; a careful examination of the stomach failed to reveal a perforation; the gall-bladder was found to be adherent to the transverse colon and had perforated just at the margin of these adhesions; I did a no-loop gastro-enterostomy and found the ligament of Treitz abnormally developed and cut it back as recently suggested by Mayo so as to prevent this loop formation, the gall-bladder was then excised and a drain passed down to the duct to drain some slight oozing coming from the bed of the gall-bladder, which was sutured over after Moynihan's method; the appendix was found to be occluded at its base and was hurriedly removed; the abdomen was flushed out with hot salt solution and a stab made

above the pubis for drainage, in the Fowler position, which was used as soon as the patient was placed in bed. His condition was quite as good at the end of the operation as when we began, with a pulse of 104 and of good volume.

In the course of a few hours it was necessary to lower the head of the bed on account of the effect it had on the pulse.

He progressed very satisfactorily for 24 hours when there was some vomiting of regurgitated bile, but as soon as the head of the bed was elevated again this was relieved.

On the second day there was considerable drainage of bile, the ligature evidently having cut through the cystic duct which was very friable at the time of operation. This continued to drain freely but the patient would vomit some bile about once or twice a day and this did not improve much until the drain was removed at the end of two weeks when the gauze wick was found to be saturated with a hard material from the bile, being practically a long gall-stone and pressing on the duodenum and causing the irritation, this was replaced by a small rubber tube but this also proved to be a source of irritation and not until this was left out did we relieve our patient of all vomiting.

The urine contained a considerable amount of bile for about a week. Ten days after operation it showed a trace of albumin; no sugar; spec. Grav. 1028; numerous small hyaline and granular casts; no acetone.

There has not been any regurgitant vomiting since all of the drains were removed; the wounds have all healed up and he is able to take long walks and is now in New England for the summer, he reports that he stood the trip well and is having no trouble with his digestion.

Case III.—Chronic Ulcer Near the Greater Curvature on the Posterior surface; No-Loop Gastro-Jejunostomy; Recovery.

Mrs. B., age 33, family history negative except that she has one sister who has had some stomach trouble for the past ten years.

Menstruation normal; has been married 14 years; has six children; eldest 13 and the youngest one year old.

About ten years ago she drank too much water while over-heated one day, and fainted, probably having an acute dilatation of the stomach, she vomited in a few minutes and was somewhat relieved; previous to this time her digestion had been good; says she could feel a lump in her stomach for a year after this. She suffers with pain after eating which comes on before she leaves the table and usually last about two hours; gas distension; palpitation; pain around her

heart; severe pain under the left scapula; gnawing pain in the region of the stomach; recently the pain and soreness in the epigastrium is constant and is relieved by a little food; she improves for a little while and then gets worse again; has lost about 30 pounds in weight in the past six months; bowels constipated; no tarry stools; has been troubled with a diarrhoea for several weeks; heart, lungs and urine negative. No dilatation of the stomach.

She was referred to me by her physician, Dr. H. C. Moreland of New Castle, Ala. After getting the above history and giving her a careful examination, I advised a gastro-enterostomy which was agreed to by her physician and family and she returned on April 6th, 1908, and was admitted to St. Vincent's Hospital; after being put on sterile food and water and having her teeth and mouth cleansed every few hours, for 24 hours, I opened the abdomen under ether, through the right rectus, and found several scars in the first part of the duodenum, and after a careful search on the posterior surface of the stomach, I found an ulcer about the dime, somewhat indurated, near the greater curvature and about two inches from the pylorus.

As soon as the clamps were applied we discontinued the ether and did not give her any more until ready to close up the abdomen, the actual time of doing the anastomosis was 32 minutes. Only two ounces of ether were used during the whole operation. She left the table in excellent condition and her recovery has been as smooth as from an interval operation for appendicitis.

She was given water and nourishment by rectum for four days; sterile water was given by mouth on the second day and chicken broth on the third day. She has been kept on a very limited diet and her digestion seems better. She was placed in a wheel chair at the end of a week and rolled out to get some fresh air.

Case 11.—Chronic Ulcer Posterior Wall Stomach; Adhesions to the Liver Causing Obstruction of the Pylorus; Death on the Third Day from Acute Suppression of Urine.

Mrs. C., age 28, was operated upon at the Hillman Hospital, on April 8th, 1908. Strong adhesion was found between the stomach and the liver causing an obstruction of the pylorus; the whole of the lesser peritoneal cavity showed adhesions and an old inflammatory condition, probably a chronic perforation. The adhesions were broken up at the pylorus and a no-loop gastro-enterostomy was done without breaking up the adhesions on the posterior surface of the stomach as suggested by Dr. B.

F. Lund in the Boston Med. and Surgical Journal, 1905, Vol. 1.

The patient remarked the following day that she had had the best night she had spent in months, she did not vomit at all until the kidney condition supervened and her general condition was good, the second night she became rather stupid and vomited some bile-stained mucous at intervals of several hours; she had been getting a saltue enema every three hours and previous to this time the secretion of urine had been quite free; during the last 20 hours before death only two ounces of urine was gotten and this was drawn by catheter, this contained a large amount of albumin and granular casts; spartiene sulphate was given every two hours hypodermatically after it was discovered that the kidneys were involved, but this did not improve her condition any and she died on the morning of the third day.

Her previous history was rather vague; for six weeks prior to her admission to the hospital, Dr. Bandy, her physician, told me she had vomited constantly no matter what was given her, and that she had been nourished by rectum but not satisfactorily; she had had slight attacks of indigestion at times for the past three or four years, but these were relieved in about a week by the administration of some alkaline treatment. She had not had much pain or severe digestive symptoms until this persistent nausea developed and the operation was done on account of this symptom, having persisted so long she was in poor condition, her pulse being weak and rapid but she was not so much emaciated as might have been expected and we thought the condition might be a purely neurotic one.

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Hysteria: Its Rational Treatment.

By L. C. Allen, M. D., Hoschton, Georgia.

Canst thou not minister to a mind diseased,
Pluck from the memory a rooted sorrow,
Raze out the written troubles of the brain,
And with some sweet, oblivious antidote
Cleanse the stuff'd bosom of that perilous stuff
Which weighs upon the heart?

—Shakespeare.

How could Miss Smith keep from being hysterical, when that condition came to her just like her features came to her? How could she have kept from having blue eyes and a fair skin? How could my friend Jones have ever made a great musician, when he can scarcely tell the difference be-

tween "Old Dan Tucker" and "Old Hundred"? How could that extravagant enthusiast, Swedenburg, have been an infidel? and how could Charles Wesley, "the sweet singer of Methodism," have kept from writing songs? Could stern old Andrew Jackson ever have been guilty of acting the part of a coward, or General Washington that of a clown? "Can the Ethiopian change his skin, or the leopard his spots?" Then how can Miss Finiky Fidgets keep from having the hysterics?

Hysteria is peculiar. It is not like "anything that is in the heavens above, or that is in the earth beneath, or that is in the waters under the earth?" It manifests itself in ways innumerable. Your hysterical patient is often springing surprises upon you. She takes a delight in doing that. She is never so well satisfied as when she succeeds in exciting the interest, attention and wonder of all her friends and acquaintances. She has a morbid craving for sympathy. She glories in notoriety, and thinks every body should pet her, and humor her caprices as a matter of course. Hysteria should have been named for the god Proteus, instead of for the uterus, for the latter, I think, seldom has anything to do with it. I have seen hysteria superinduced by the infirmities of old age; I have seen it occur in robust adult males; I have seen it in little boys and girls; I have seen it in the ignorant and timid; and I have seen it in the strong-minded and brave; and one often finds it where he least expects it.

In this paper I wish to be understood as speaking of hysteria pure and simple. I have no doubt that many patients that consult us with numerous, vague, subjective symptoms are often termed "hysterical," when, in reality, they are afflicted with some important functional, or perhaps organic, disease. It is often extremely difficult for the physician to probe beneath the surface and discover the real cause of the more superficial phenomena about which he is consulted. Indeed, it is often extremely difficult to distinguish between health and disease, between the normal and the abnormal, both in body and mind. Expert neurologists often differ in opinion as to whether a certain man is sane or insane. There are many individuals whose minds are not well balanced. There are religious cranks and scientific cranks; there are political cranks and medical cranks; and it is not any crank's fault, wholly, that he is a crank—he was born that way. There have been men whose genius made them famous the world over, and yet whose minds were decidedly whimsical.

In all cases of hysteria there is a predisposing cause and an exciting cause. The

predisposing cause consists in a peculiar mental organization, an abnormally sensitive nervous system, and this is usually inherited. That a tendency to hysteria runs in families, and is transmitted from parents to children, there can be no doubt. And the injudicious way in which many children are brought up, their whims pampered, their caprices indulged, and their ailments intensified by an inconsiderate sympathy only serves to strengthen and aggravate this hereditary tendency. If these children are not properly managed the trouble will grow stronger, just as the exercise of any faculty of the mind will strengthen that faculty, or the practice of any habit will confirm that habit. Let a girl get into the habit of having hysterical spells of any sort, and, if repeated for a few times, the habit soon becomes so irresistible that it is well-nigh impossible to cure it.

The exciting cause of an hysterical attack may be physical or mental. Disappointment, anger, jealousy, fear, or the excitement of any strong passion, in a predisposed individual, may bring on an attack, as is well known. Almost any physical ailment may do the same thing. Acute diseases of the stomach, according to my experience, are especially liable to cause hysteria in those persons inclined to it. I have more than once seen hysterical dyspnoea occur during the course of typhoid fever, due, as I believe, to the fear of death.

The treatment of hysteria is seldom carried out correctly, according to my opinion, especially in young persons, and in the first attacks in adults. In older people with confirmed hysteria, but little hope of doing anything for them can be entertained. No more pitiable a class of people inhabit the earth, and at the same time they are the pests of every physician's life. But in young persons, and in older people during the first attacks, this condition can often be cured. It is especially in the interest of these young people that I am writing this paper.

The girl or young woman who has hysteria for the first time is in a very critical condition, indeed. If she falls into the hands of injudicious friends, and a bungling doctor, she is likely to be ruined for life. But if she is managed properly she may be cured and saved from a life of valedudinarianism and wretchedness. Very many of these young patients of ours are as intelligent and amiable as could be desired, with all the possibilities of a useful life. But if they get into the hysterical habit, their future, however bright it may be, is blighted, and they soon become as hopeless a case as the opium eater, or the whiskey debauchee. Let us try to save them.

Now, the usual course pursued in treating these cases is to give them valerian, musk, assafoetida, the bromides, and the Lord only knows what; at least three or four remedies are given to meet fancied indications; the patient also receives a great deal of attention and sympathy from relatives and friends. All of this only goes to confirm in her mind the idea that she is badly diseased. This plan is all wrong, very wrong, and the result can only be disastrous. To the conscientious and experienced physician the result of such treatment is truly dreadful to contemplate. I had as soon lead a blameless youth to the bar room, and be the means of ruining his morals, as to take one of these beautiful and innocent girls and blast her life through this plague of hysteria.

Instead of being doted, what the young patient needs is—*discipline*. In every case the patient and family should be made to understand that the patient has no physical disease. The patient should be told plainly that she is *doing wrong*, and that unless she desists she will be punished; that she needs no drugs; that possibly she has been honestly deceived in herself, and in that case, if she will do right in the future she will be forgiven. Each case must, of course, be managed with due regard to the individual peculiarities of the patient. In any case, however, manage the child just as you would for committing any serious moral offense.

In the meantime, the patients hygienic surroundings should be looked after, her habits inquired into. See to it that she gets proper food, and that she gets plenty of outdoor exercise. Be careful that she keeps only the right kind of company, and that she reads the right kind of books. She should not be allowed to associate with nervous, acetic, or melancholy individuals. Especially should she be kept apart from hysterical relatives and sympathizers. I commonly find this last regulation the most difficult to enforce.

It is a common mistake to suppose that menstrual derangements and uterine and ovarian affections are the chief cause of hysteria. Only in very rare cases have I had any reason to suppose that such affections had any causative relation whatever. But almost every woman that I have seen with hysteria, and who had been treated before at all, had been tamponed, given vaginal douches, and such remedies as black haw, emmenagogues, "aletis," "liquor sedans," and such things. Not a few have been curetted, castrated, dilated and "repaired" in various ways, *ad nauseam*. To me the manner in which many physicians treat the generative organs in

females for hysteria is both ridiculous and pernicious. Let me make that emphatic: *these parts should be carefully avoided if you would cure your patient*. Divert her mind in some other direction. Let an hysterical woman once get the idea in her head that she has "womb disease" and she will be an invalid for life. Treat the "womb disease," and you thereby confirm her notion, and instead of curing her you make of her a chronic invalid. She will stick to that idea until Gabriel blows his trumpet.

Theodorus, a physician spoken of in Rabelais' romance "Gargantua," at the request of Ponocrates, Gargantua's tutor, undertook to cure the latter of his vicious manner of living, and, accordingly, purged him canonically with anticyrian hellebore, by which medicine he cleared out all the foulness and perverse habits of his brain, so that he became a man of great honor, sense, courage and piety. The above being true, we might suppose from analogy that "anticyrian hellebore" would be a capital remedy in cases of chronic hysteria. This incident is given, however, chiefly to help us to understand the rationality (?) of the usual method of treating hysteria.

Some females have hysterical attacks at each menstrual period, and yet the flow is normal in every respect, and an examination reveals nothing wrong with the pelvic organs. What causes the hysteria here? The question is not difficult to answer. Evidently the trouble is in the cranium and not in the pelvis. These individuals are hysterically inclined, and they have something, somewhere got hold of the idea that menstruation causes such afflictions. It is a kind of suggestion. Treatment directed toward the generative organs in these cases only makes matters worse, because it goes to confirm their notion that they are diseased in their sexual apparatus.

It is not my purpose in this paper to discuss hysteria in all its manifold forms and conditions. Of course you are aware that in chronic cases we have anaesthesia of different parts of the integument, concentric limitation of the visual field, loss of color sense, limitation of the range of hearing, and divergence of the senses of taste and smell. In fact we know by experience that in a bad case of chronic hysteria we can find almost anything we look for. One of the deplorable characteristics of this condition is a disposition to exaggerate everything, and sometimes to tell willful and unmitigated lies. However, no lesion in any part of the nervous system has ever been found, *post-mortem*, to account for the anaesthesia, the sense disturbance, or the lying.

Finally, let me admonish you not to be

too impatient or inconsiderate with your hysterical patient, for all her ways are ways of unpleasantness and all her paths are void of peace. And remember that hysteria is not a surgical affection, and cannot be cut out of your patient; and especially do not forget that it is not a gynecological affection, and cannot be cured by any of the methods peculiar to the gynecologist; also preserve fresh in mind the fact that hysteria cannot be removed or cured by purgatives, emetics, alteratives, sedatives or any other drug or class of drugs. Hysteria is a neurosis, and only moral treatment can affect it.

Hoschton, Ga., April 7th, 1908.

Prostatitis.†

By Dr. Geo. H. Day, Louisville, Kentucky.

Prostatitis is a series of changes that take place in a normal gland as a result of external or internal mechanical force, strong injections or installations, or by infection from the urinary tract. The gonorrhoeal prostatic, indeed, presents "a picture no artist can paint." Of all diseases of the genito-urinary tract this is probably the most widely misunderstood.

Inferring that the anatomy of the prostate and its adnexa is understood we will delve into the subject as deeply as time will allow, realizing that we have a worthy foe to combat—one that at times baffles even the authorities.

Naturally dividing gonorrhoeal prostatitis into the acute and chronic stages, we will generally find in the acute a history of gonorrhoea followed by the injudicious use of instruments, irritating drugs, and over indulgence in intercourse or alcoholics, walking, bicycle-riding, or in pursuit of one's occupation, thereby inoculating the prostate.

The diagnosis of acute prostatitis is, as a rule, very easy, the patient presenting well marked symptoms, general depression, fever, chills, a sensation of heaviness and throbbing in the perineum, rectum and lumbar region, which at times occludes all efforts of defecation and micturition. Thus, we will find the patient lying on his side or back, knees flexed on the abdomen, in which position he remains until abscess or resolution relieves him.

In the chronic stage Casper has well said that this condition is found in sixty per cent. of all chronic gonorrhoeas. This makes us realize the vast importance attached to our treatment of these cases. We have all had to deal with a great majority of clap cases in which it was almost impossible to clear the morning drop, and at times

we are bound to confess we have exhausted all our resources with no perceptible result. These patients, indeed, present a direful picture. Usually they are impotent, melancholic, weak and very emaciated—fit subjects for the neurologist.

The chronic inflammation in the prostate, coupled with a similar condition of the posterior urethra, produce a series of symptoms that are vexatious, to say the least.

The first symptom that calls the attention of the patient to his condition is generally relative to the sexual system. When these patients indulge in intercourse they find that they suffer from premature ejaculations; also that the erections are imperfect and sometimes entirely absent—no matter how great the desire—which condition soon leads to neurasthenia. The urine is usually of a low specific gravity, moderately alkaline, considerable quantity being voided. The urination is frequent, sometimes voiding at least half a dozen times during the night, with a feeling as though a hot iron was passing through the urethra, and a reflexed pain in the gland penis at the end of the act.

Palpation will reveal very little in patients between the ages of 18 and 25. The prostate will be very little, if any, enlarged, although at times small nodules will be found scattered over the surface of the gland. Generally, one or the other of the lobes is hypertrophied anteriorly. The examining finger in the rectum causes hardly any pain, unless deep pressure is made. This apparently normal condition of the gland usually throws us off our guard and we conclude with the examination of the urinary tract without any thought as to the pathological condition in the prostate.

The introduction of a bougie into the urethra is experienced with very little pain until the prostatic portion is reached. The bulb will then hang, due to a spasm of the compressor urethra. This is soon overcome and the bougie soon passes into the prostatic portion where, at times, it is met with a powerful spasm of the prostate—strong enough to eject the instrument.

Here is where we make up our minds the trouble is located and so with proper treatment the extreme sensitiveness of the posterior tract is soon dispelled, leaving the condition of the prostate unrelieved and causing the patient to relapse into his old condition—due to a reinfection from the prostate. These cases are the so-called gonorrhoeal incurables, primarily due to the fact that we are relieving symptoms and have not gotten to the cause of the trouble which is necessarily located in the prostate. The urine in these cases shows abundance of the phosphatic salts; also great numbers

†Read before the Louisville Society of Medicine, Louisville, Kentucky.

of the coma-shaped shreds, of which Taylor speaks as typical in this condition.

Examination of the urine by the three-glass test and centrifuging it will usually arouse our suspicions and a microscopical examination of the contents of the expressed gland will generally confirm the diagnosis. This test is easily made. The patient is made to urinate in three glasses, then a solution of sterile water is thrown into the bladder. He is next placed on a table on his right side, with his left leg flexed upon the abdomen and the right extended. In this position the gland is thoroughly massaged, having convenient a cover glass to obtain a specimen of the expressed discharge. A microscopical examination will show a great deal of mucus, granular and triple phosphates; also pus cells, epithelium and quantities of dead spermatozoa; and it has been demonstrated by Oberlander, Pinger and others that gonococci may lie dormant in the deep tissues of the prostate for years, when under certain conditions they may be aroused to activity.

It may be said in this connection that a great deal of care should be taken with the first examination. Due allowance, of course, is made for different types of individuals. It is necessarily understood that a thorough stripping of the gland of a badly nourished and nervous man would be disastrous; therefore, great care must be exercised in the examination, as the bad effects of the first seance are lasting in the patient's mind.

Prognosis.—The prognosis is generally good. However, the patient must be impressed with the fact that months and sometimes years will elapse before he is completely cured. This is probably the most important feature that should be borne in mind by the physician. Occasionally, relapses occur.

Treatment.—The successful treatment of a large portion of these cases is very unsatisfactory. Its course is long and tedious. A number of patients tire of the "simple life" necessary for complete recovery. It is essentially necessary to have absolute control of the patient. He must be made to understand the gravity of his trouble and that it rests entirely with him whether he shall recover; that this is a disease of lasting duration—one that will cause him a great deal of harm and one that will cause him probably, if neglected, in later years to undergo an operation. All these things must be deeply impressed. Then the rest is easy.

Of course, abstinences from alcoholics and sexual excesses are essential. Plenty of outdoor life, without horse-back riding, bicycling or any of the strenuous sports, must be ordered. An ordinary diet of easily digested foods should be prescribed.

Massage is the indispensable factor in the cure of prostatitis. This alone will cure an uncomplicated case. As a matter of fact, all of the so-called specifics, such as permanganate, baths, the various silver salts, zinc and alum, are only aids in the successful treatment. As a rule, massage on alternating days on an average moderately strong person is borne very well, although Casper, Taylor, Finger and Fournier advance the theory that massage properly performed once weekly is entirely sufficient. But from actual experience and complete histories kept on different prostatises has made me conclude that with due care in the performance of massage it cannot ever result in anything but good.

The Kollmann Dilator, in my hands, has been of immense value in the treatment of these cases. As a rule, the orifice of the ejaculatory duct is involved, either by adhesions or by dense and inflammatory conditions of the posterior canal; also the ducts may be plugged up with lime salts, mucus or amyloid bodies. Dilation will relieve this condition. The gradual dilation upon alternating days to the point of tolerance has proved to be very beneficial. Due care must be exercised, however, in its use, as great harm may result from over dilation.

A great deal has been written about electricity in connection with the treatment of prostatitis. The use of high frequency current has not proven at all satisfactory, and after experiments extending over a period of several years I have demonstrated to my own satisfaction that very little, if any, good can result from its use. Overall has devised several ingenious instruments with which he claims to have secured splendid results. Probably in this great field something will develop in the near future, but at the present time very little can be said of the instruments and apparatus devised for the treatment of the diseased prostate.

To summarize; complete control of the patient; massage as often as is well borne, followed by irrigations of permanganate alternating with installations and irrigations of silver; moderate use of the dilator; baths; psychrophor; ice cold sounds; hot rectal irrigations; iron and the different bitter tonics, will usually be found satisfactory to successfully treat the average case of gonorrhoeal prostatitis.

The neurasthenic and impotent prostatic requires treatment that is really problematic. These cases are most difficult to control—the patient apparently losing all interest in life—and at times we are forced to refer them to a sanitarium for the treatment of the psychic symptoms.

In the chronic prostatic past the age of fifty very little can be accomplished with-

out the aid of surgery. The gland is hypertrophied to enormous proportions, the patient eventually living the catheter life. Extirpation of the gland is necessary, for with the aseptic conditions of modern surgery the mortality has been greatly reduced. This is the only solution of the hypertrophied gland in old men. But this is by far of too great importance to be taken up at this time. However, in younger men the consensus of opinion is that *prostatectomy* is contraindicated.

Paul Jones Building, Louisville, Ky.

Esophagoscopy as a Means of Diagnosis and Treatment.

By Richard H. Johnston, M. D., Surgeon and Pathologist to the Presbyterian Eye, Ear, and Throat Hospital; Lecturer on Diseases of the Nose and Throat in the University of Maryland School of Medicine, Baltimore.

For examining diseased conditions in the esophagus, the esophagoscope is the best instrument at our command. Since Gottstein in 1892 advocated the passage of the instrument under cocaine anæsthesia, this method of examination has grown in favor. But its use is not as widespread as it should be, when we consider that the introduction of a straight tube into the esophagus is a comparatively simple and easy procedure and one that is practically painless to the patient. As a means of diagnosis it is invaluable because we see exactly what the pathological condition is, and seeing is far better than the most delicate touch. As a means of treatment it is superior to the use of bougies because we are able to apply remedies to the diseased spot which is impossible by other methods of treatment. In the removal of foreign bodies, its place cannot be taken by other methods, because, here again, we see the object and remove it by specially constructed hooks and forceps. Specimens for microscopic examination can be removed with forceps and a positive diagnosis made promptly. I believe that esophagoscopy can be performed with the average adult patient under cocaine anæsthesia if a dose of morphia and atropia be given hypodermically a half hour before the examination. In nervous adults and in children, ether anæsthesia is probably better.

The ease and simplicity of esophagoscopy is well illustrated by the following case: October 24, 1907, E. R., 44 years old, came to the Presbyterian Hospital complaining of difficulty in swallowing. Some weeks before he had had trouble in swallowing solids and this had gradually grown worse until only a small amount of liquid food passed into the stomach. The patient pointed to a spot about four inches below the

cricoid cartilage as the point of obstruction. He had always been a healthy man but for the last seven years had been a hard drinker of all kinds of alcoholic beverages. There was no pain and the physical condition was good. The esophagoscope was passed under the guidance of the eye. About four inches below the cricoid, further progress of the tube was stopped by a large round, red, nodular mass which appeared to fill completely the lumen of the esophagus. It seemed impossible for anything to pass the obstruction. Palpation with a small probe revealed a minute opening behind the tumor which was at once enlarged with Bunt's esophageal bougies beginning with the smallest and gradually increasing the size. These bougies are passed through the esophagoscope under the guidance of the eye so that there is no danger of making a false passage or puncturing into the mediastinum. Three days later the above procedure was repeated. The patient now swallowed liquids with ease. After the second treatment the opening was large enough to dilate gently with a French bougie which was passed every few days. Whenever the stricture showed any disposition to close, the dilatation with Bunt's bougies was repeated. The treatment was not objected to and the patient said there was no actual pain from the passage of the instruments. For nearly six months he has been fairly comfortable and a gastrostomy put off for this length of time. The growth is undoubtedly malignant and will cause death eventually but this will certainly not come from starvation. At present he takes quantities of milk and eggs and various liquid foods. So well does he feel that he sometimes talks of fooling the doctors by getting well. In simple stricture of the esophagus, esophagoscopy is the ideal method of treatment. By inspection the stricture is located, the opening found by sight or with the probe, Bunt's bougies passed and dilatation accomplished at the first sitting. By repeating this treatment once or twice an opening is made large enough for a large French bougie to pass. The treatment is absolutely safe and far superior to the indiscriminate and blind use of bougies as usually practiced.

Diverticulum of the esophagus can be quickly diagnosed by the esophagoscope as can also ulcers from various causes. Once the diagnosis is made, treatment follows through the tube under control of the eye. When one considers the great value of the esophagoscope, it is remarkable that it does not find more frequent use. By its intelligent use many cases condemned to gastrostomy in the past could have been cured without the operation. It does seem that a method of diagnosis and treatment so sim-

ple, so useful and so easy to learn should be used oftener by men in general practice who first see the cases requiring such examination. When more practitioners become expert in the use of the tube, gastrostomy will be only exceptionally performed. Cases of malignancy can be made comfortable for a long time by simply dilating occasionally. In the above case the stenosis has not been dilated for six weeks.

919 North Charles St.

The Significance of So-called "Irregular Menstruation," and the Importance of a Careful Physical and Pathological Examination.

By Wm. T. Black, M. D., Visiting Surgeon Memphis City Hospital; Visiting Surgeon Memphis Foundling Home; Surgeon Memphis Street Railway Company; Assistant to Chair of Gynecology and Anatomy Memphis Hospital Medical College.

Women are so prone to look upon irregular bleeding as so trivial a thing, we physicians get careless and do not attach the importance to the subject that it deserves. A woman consults her physician, giving about the following symptoms, namely, "Dr. I am not sick, but I have been suffering with my periods for the last few months, I flow too much and sometimes I come unwell between my regular time, I have a discharge, pain in my back, etc." The physician being busy and the patient attaches so little importance to her trouble that the doctor gives a little *Viburnum Prunifolium*, *Ergot* or *Iron*, and advises an antiseptic douche, not realizing that his patient has cancer, fibroid tumor, or some other serious pathological condition not amenable to such treatment. He does not inquire into her history carefully, does not ask if she has had an abortion or a labor followed by a pelvic peritonitis, or a laceration, or whether the bleeding comes on after sexual intercourse, straining at stool, violent exercise, or the taking of douches; neither does he inquire into the character of the leukorrhea, or ask her if she has lost weight recently, and above all does not insist upon a physical examination; consequently many a life is sacrificed on the altar of carelessness. Whenever a patient gives abnormal menstrual histories, we should inquire carefully into her previous history, her past and present symptoms and insist upon a physical examination, for we will often find grave pathological conditions present (such as fibroids, primary and secondary uterine displacements, diseased appendages, lacerations of cervix and perineum, ulceration of cervix and the various forms of endometritis) when we least suspect them.

The following are a few of the cases that have come under my observation recently,

which demonstrate the importance of physical and pathological examinations of our patients suffering from irregular bleeding:

Case 1.—A physician from a neighboring town telephoned to me that he had a case of recto-vaginal fistula which he had been unable to improve after treating her for some time and would send her to the city for me to operate upon. Two days later the patient was in the hospital—the doctor accompanying her and giving the following history: He stated that he had been attending this patient for a long time and that she had been troubled with her periods, (bleeding too much) had profuse leukorrhea, had lost weight and that fecal matter came through the vagina rather than rectum. The doctor stated he had never made a vaginal examination. I found the patient extremely emaciated and weak—made a physical examination and found a vaginal discharge of blood and pus, a foul smelling leukorrhea, the cervix and body of uterus nothing but a shell, bladder appendages and lymphatics infiltrated, uterus fixed and a large opening into rectum, which was nothing but a cancerous mass. Only palliative treatment was instituted and in a few days the patient was sent home to die of a condition which might have been cured if operated upon in time.

Case 2.—Mrs. G., white, widow, age 38, sent a hurry call to me, saying she was flooding. I called and obtained the following history: She said, "she had been coming unwell too often and that at times she would bleed after walking hurriedly, or when her bowels moved." She had a very foul smelling discharge which was very evident upon entering the room. She also stated that she had been under the treatment of a physician for some time for ulcer of the womb, and that he was giving her local treatment, but it did not benefit her menstrual flow, and asked me to please give her some drug for it. I told her from her history of bleeding, the character of the discharge, ulceration of her womb, a marked loss of weight, and peculiar cachexia that I thought she had cancer of the uterus and to come to my office and I would make a physical examination and find out for a certainty. She came to my office and I found a very characteristic ulceration, marked induration of edges, rough, tissue very friable and bled so profusely by touching the ulcerated area that I was compelled to pack the vagina and send her to a hospital and curette and cauterize the diseased tissue to stop the bleeding. She was partially relieved for a few weeks by this palliative treatment, but the surrounding parts were so thoroughly infiltrated with the cancerous material that a radical operation was out of the question. This case represents

the importance of obtaining a section from an ulcerated wound when in doubt as to its nature and having a competent pathologist examine it.

It is probable that if the physician in charge of this case had recognized the trouble that this woman's life could have been prolonged, as we know carcinomas of the cervix travel slowly owing to the small lymphatics in that region.

Case 3.—Emma C., colored, 28, had been irregular and profuse in her menstruation during the last few months, lost some weight, had a profuse leukorrhea, and some time past suffered with piles. At the time I was called she had been in bed for 24 hours, was passing large clots of blood, and had been for 10 days—some of the lumps looked to her people like flesh, she had pelvic peritonitis and was suffering intense pain. She gave a negative history of any previous illness, (excepting the metrorrhagia and menorrhagia), had never been sick in bed in her life. She had been under the care of other physicians, but none had examined her. I sent her to the hospital and in a day or so she was anesthetized and her womb cleaned out; found her uterus very much enlarged and ulcerated which extended up into the body; I attempted to examine her rectum for hemorrhoids, but could not get my little finger past a stricture. From the character of the stricture, age of the patient, and realizing the frequency with which the negro race acquire and inherit syphilis I thought of the probability of the condition being one of syphilis, although the ulcer had many of the characteristics of carcinoma, (was advised by some very prominent physicians present to remove the wound at once if I did not believe the case had passed operative relief). Decided to obtain a section for examination to confirm the diagnosis. First pathological report was negative as to cancer, so obtained the second specimen and it likewise did not show carcinoma, but an erosion and ulceration of the cervix and syphilitic arteritis.

Case 4.—A young married woman, 28 years of age, who gave a history of metrorrhagia, leukorrhea, occasional attacks of pelvic peritonitis, lumbo-sacral pains which radiated down the thighs and a history of sterility. This woman had been treated for the past two years for this condition without a physical examination. I examined her and found the uterus enlarged on the upper and anterior portion, and a mass to the left of the uterus. Operated and found a large subperitoneal fibroid tumor of uterus, a purulent salpingitis on the left side and an ovarian cyst on the right side.

The above cases are only a few examples which illustrates the importance of careful

and painstaking examinations of our patients, but such examples should awaken ones sense of responsibility in such cases, as their lives are, (you might say) at our disposal.

The first case cited shows absolute neglect of the patient by not making a physical examination. The second illustrates the lack of diagnostic skill and the failure in such cases to have a microscopic examination made. The third demonstrates the lack of a physical examination and shows what serious mistake we might make by removing a wound which seems to be cancerous when it is not without a pathological examination; however, I believe in doubtful cases where a pathologist is not available that we had better err and remove the womb than to leave pathology that will certainly sap away the patient's life.

The fourth case, like the first, shows that we should be more careful in examination of our patients if we expect to have successful results.

Randolph Building, Memphis, Tenn.

Typhoid Fever.†

By Dr. R. E. Klutz, Troutman's, N. C.

Typhoid fever is an acute infectious fever due to the implantation and proliferation of the typhoid bacillus—the bacillus of Eberth.

It is especially characterized anatomically by hyperplastic and ulcerative lesions of the lymph-follicles of the intestines, of the mesenteric glands, and by enlargement of the spleen.

Etiology.—The typhoid bacillus, to which prevailing views ascribe typhoid fever, was discovered by Eberth in 1880 in the intestine of a case of the disease. This observation was promptly confirmed by Klebs, Koch, Gaffky, and others, who found it in the intestine, lymphatic system, including the mesenteric glands and spleen, in the liver and the kidneys, the blood and bone-marrow, and even in bile and urine, as well as in the rose-colored spots. The bacillus is described as a short, rod-like bacterium, whose length is about one third the diameter of a red blood disc, and its width one-ninth of the same, though its size and shape vary somewhat with the culture medium and the age of the bacillus.

The bacillus itself most frequently enters the blood through the stomach in drinking water or milk, in both of which it has been found during epidemics. There is reason to believe also that it may be inhaled.

It is quite well settled that the bacilli find their way into food and drink through the careless disposition of alvine discharges

†Read before Iredell-Alexander Medical Society.

from typhoid fever patients, and more than likely that food may be contaminated by contagion conveyed from these discharges by the common house fly. Whether the bacilli multiply outside the body in water of wells or rivers to which they have obtained access is not well settled, but judging from the large number of persons sometimes infected from those sources, it is not unreasonable to conclude that such multiplication can take place.

Predisposing Causes.—Experience fails to establish definite predisposing causes of typhoid fever, but new-comers are more likely to be attacked than old residents, (as early shown by the French physicians in Paris). It certainly often attacks the strong and healthy as fiercely as the feeble and delicate, while allowance must be made for the more frequent exposure of the healthy. Thus caused, typhoid fever is unlimited in its distribution by climate or civilization, but it may be complicated by disease peculiar to certain localities pre-eminently malaria.

Typhoid fever is a disease of adolescents and adults under thirty, although it may occur at any age. Less common in children, perforation has been found in a child five days old, while not a few cases have been reported in sucklings. Infection in utero is claimed as possible because of successful cultures of bacilli from the fetus. In the young the duration of the disease is short and the prognosis singularly favorable. It has occurred at the age of 75, 86, and even 90. More men than women have typhoid fever, probably because of their more frequent exposure. The assertion that the pregnant state seems to protect against typhoid fever has not been substantiated. Typhoid fever is more common in the late summer and autumn than at any other time of the year. Heat has probably to do with the ripening of the cause, but the relation of moisture to such maturing is not so well settled. It has, however, been observed that hot and dry summers are followed by more cases than hot and moist summers. Liebeneister prefers to explain the relation of typhoid to the hot and dry season by the fact that at this season the quantity of solid matter in springs is relatively larger; that the poison, in other words, is more concentrated, and therefore more virulent. Special epidemics may occur at any season.

Complications and Sequelae.—The Spanish-American war has confirmed the possibility of the co-existence of typhoid fever and malarial fever, since a number of cases from among the soldiers have been reported in which not only all the necessary clinical features of typhoid fever were present, but

also the Widal reaction, in which, too, the malarial organism was found in the blood. On the other hand, a mongrel disease that is the product of the two causes, as was since supposed to be the case, and known as typhomalarial fever, does not exist. The term should be dropped, as it is confusing and gives rise to erroneous impressions. Scarlet fever, diphtheria, measles, chicken-pox, rheumatism, and especially erysipelas, may befall a typhoid case. Typhoid fever itself predisposes to tuberculosis, and not a few patients recover from the former disease only to be attacked by the latter.

Thrombosis of the femoral vein, more frequently the left, resulting in phlegmosia, often delays convalescence. It occurs in about one per cent. of all cases. Paratititis, commonly going on to suppuration, is an occasional symptom. It is the result of infection by Steno's duct. Noma, or gangrenous stomatitis, has appeared as a complication or sequel in children. Neuritis is an occasional complication or sequel. I recall one patient who made a splendid recovery, but had the exquisitely tender toes first described by Handford. The tenderness was so great that the bed clothing had to be kept raised by a cradle. The typhoid spine, to which attention was called by Gibney, of New York, in 1889, is a sequel of undetermined nature. There is severe pain in the back, commonly aggravated by motion.

Relapses.—These occur readily, succeeding, it used to be taught, upon premature relaxation of diet. The demand of the convalescent for change in food, and especially for solid food, is often well-nigh irresistible, but should be denied until the temperature has been normal for a week. With our present views as to the etiology of typhoid fever relapses cannot be thus explained; for, while such indiscretion in diet might reasonably be expected to renew intestinal lesions, it would not be expected to revive the life of the original cause, the bacillus. Accordingly, we must look elsewhere. Relapses are to be distinguished from recrudescence, which is a simple return of fever, often induced by numerous causes, including lapses in diet, too much excitement, and the like.

Treatment.—Rest and diet. The primary conditions of a successful treatment of typhoid fever are rest in bed and a liquid diet, of which milk is the type. No one questions the necessity of putting the typhoid fever patient absolutely at rest in bed and not permitting him to rise for any purpose until convalescence is thoroughly established. That the diet should be liquid is a little disputed, while milk is generally conceded to be the safest form. Very rich milk

is not desirable, hence such milk should be diluted with water as Carbonic acid water, Vichy, or lime water. There can be no reasonable objection to enlarging the dietary of ordinary cases of typhoid fever by any easily assimilable albuminous saccharine or amylaceous food. It is a mere matter of convenience. Shattuck's diet in typhoid fever includes many allowable articles: 1. Milk, hot or cold, with or without salt, diluted with lime water, soda water, apollinaris, or Vichy; peptonized milk, cream and water, milk with white of egg, butter-milk, kumiss, matzoon, milk whey, milk with tea, coffee, cocoa. 2. Soups.—Beef, veal, chicken, tomato, potato, oyster, mutton, pea, bean, squash, carefully strained and thickened with rice (powdered), arrow-root, flour, milk or cream.

Temperature.—For the reduction of temperature I rely entirely on cold water, either by sponging, sprinkling, or the modified Brand or tub bath. Sponging is one of the most usual, and if rightly carried out may be quite efficient. It should be resorted to, as is the bath, when the temperature exceeds 102 degrees, and continued for 15 or 20 minutes, or until the temperature falls. An important condition of successful sponging is often overlooked. A thin film of water should be left on the surface sponged, as it is the evaporation of this, rather than the temperature of the water, which is effectual in cooling the body. Temperatures that cannot be thus controlled can often be kept down by a partial wet pack, which I have found very efficient. The patient's trunk is enveloped from the axilla to the thighs in a folded sheet, which is kept constantly wet, or as much so as is required to control the temperature, by the continual addition of cold water. Antipyretics, including antipyrin, antifebrin, phenacetin, and others of the same class, which act by producing copious perspiration, are no substitutes for the baths, for, while they reduce temperature, their effect is but temporary, and their continuous employment too depressing to the patient.*

Treatment of Special Symptoms.—Constipation, especially during convalescence, is not infrequent and should not be too hastily interfered with. If it is necessary to interfere, it should be by simple enema only. Hemorrhage from the bowels should be treated by absolute quiet with cold to the abdomen. Food should be reduced to a minimum and should be of the blandest character, as represented by peptonized milk and liquid peptonoids. In several severe cases recently, I have used the hypodermic injection of Abbott's Morphia Comp. tablet, in connection with adrenalin and turpentine, with admirable effect.

Intestinal Antiseptic Treatment.—Among the remedies employed for their antiseptic effect are calomel, betanophthol, carbolic acid, acetozone, chlorin water, salol and tr. iodine. Acetozone and betanophthol are my favorite antiseptics. Betanophthol is an efficient and non-toxic germicide. It is held that doses sufficient to produce an antiseptic effect are not irritating. These doses are 5 to 10 grains, three times daily, in water, capsule, or tablet. It is sometimes combined with salicylate of bismuth if there be diarrhea, or salicylate of magnesium if there be constipation. All the advantages of this treatment are claimed for it, including diminished abdominal pain, diminished meteorism, a clean and moist tongue, inodorous stools, rapid convalescence, and less tendency to secondary complications.

Suggestive Therapeutics.†

By M. L. Stallard, M. D., Appalachia, Va.

I have long since been thoroughly imbued with the idea of suggestion, as we find so many that are susceptible to impressions that we feel ought to be shaken off by the strong minded of this generation, yet we see it growing rapidly every year, and can but wonder at results. I have arrived at the conclusion that we all practice it, sometimes unconsciously, and that all are more or less susceptible to the idea of suggestion. It is one that for many years has forced itself upon me from observation and personal experiences, some of which came very unexpectedly, and while some authorities put the per cent. of those susceptible to suggestion at about ten per cent., I believe that if the matter was more carefully investigated that we would find it greater, as I believe that suggestions are sometimes carried out that was the result of a hallucination or dream, and will here record an instance that will explain more fully than I could possibly do otherwise.

In the year of 1884, I was called to see Mr. R., aged about 65 years, and found him suffering with ascites. I tapped him, removing several quarts of fluid, and for awhile he improved on treatment. I called to see him about two months later, asking him as to his condition, and his reply was, that he was fine, for a man who had only a few days to live. I asked him why he made such a statement, when he related the following: "A few nights since, while lying on his bed, he noticed that there were three men standing in front of the fireside, apparently conversing with each other,

†Read before the Wise County Medical Society, at Appalachia, Va., April 22d, 1908.

when they directed their attention to him, one of the three pointing his finger toward him, and said that he would live to the last of the month, and then would die, then all disappeared, as mysteriously as they came." I tried to reason with him, telling him that it was only a hallucination, or dream, also told his relatives to try and talk him out of the belief that he was going to die so soon, when physically he was so much better, but they too seemed imbued with the old man's ideas, and I left them without almost giving the matter a future thought, but was afterwards informed that he died promptly on the last day of the month, as he had predicted to me that he would do. These cases can but make us marvel at the effect that the mind exerts over the body, and if in a "matter of fact way" we give our patients inert remedies, telling them they will produce certain results, we will so often get them, that we can but wonder at them. I have a patient that I can give placebos, suggesting that they will produce sleep, and immediately get results. Not long since I was attending a patient who seemed very susceptible to the influence of medicine, when she knew what she was taking it for, and I found that I could produce anesthesia with a few drops of chloroform, and safely conducted her through a case of labor, without any pain, and did not use but a few drops of chloroform, with seemingly perfect results. Within the last three months I had a case that increased my belief somewhat along this line. I was hurriedly summoned to a nearby town, and was asked to come prepared to operate on Rev. W. for strangulated hernia. Was told that Drs. C. and E. had labored faithfully for about ten hours trying to reduce same, without success. After they had sent for me, they had let their patient rest, and were busying themselves preparing for the operation. The patient lived close to the station, and knew I was coming on the first train. I was met at the station by Dr. E. who was anxious that we see the patient at once; and operate as early as possible. Imagine our surprise when we arrived at the house, to have our patient tell us that he was so excited over the fact that he had to be operated on, that when he heard the engine whistle for the station, the tumor deliberately disappeared, reduced itself, and that he would ask us at some future time, when he could "make up" his mind, to do a radical operation for the cure of same, but so far, the operation is still being deferred to "that future time." It has been my experience, in chronic cases, especially if there is the least symptom of neurasthenic complications, that we will get the best results if we deal positively with our patients, and let

them know that we expect certain results from the medicines we are prescribing, and we will be told by our patient that the medicine is having the desired effect, and a cure, in my opinion, will be more speedily effected, as we have not only the physiological effect of the drug to bring about the result, but we have the concentrated effect of the mind in aiding to bring about the result, and this means much towards success. If we will but reflect a moment, we will find that "suggestion" plays an important part in our daily life, and that "suggestive therapeutics" is only one of many ways, in which we realize the important role of suggestion, as to a certain extent our daily manner of life is one of "suggestion," that we are constantly acting on the suggestion of others, pass them along to our associates, who in turn do likewise until they are improved upon, and brought to a successful termination by culmination, or discarded as worthless or impracticable suggestion. The fact that a patient seeks his physician is, you might say, one of suggestion, as when he is sick the idea comes to him that he is not well and along with it the suggestion that you can aid him, you diagnosing his case and that you are prescribing remedies, suggesting that you expect certain results, which your patient looking forward to get, concentrating his mind, in an unconscious way to him, aiding to bring about the desired result.

This is a subject that affords a field for much thought, and close observation, and as a result will be some day more fully understood. It is a subject that not only appeals to those who treat the neurasthenic, but we will find that its influence will be felt more widely in other branches of medicine, as in the rapid strides that are being made in every way to relieve suffering mankind, we are leaving nothing undone to get results, and improvements are almost daily recorded, from experiences of those who have more than a pecuniary desire to succeed in this life, that something has been discovered that will aid in giving greater relief to the suffering, and in conclusion would add; If we get results from "suggestions" accompanied by inert remedies, may we not expect greater results, in a great many cases, when "suggestion" is accompanied by intelligent treatment.

The Duty of the Physician to His Obstetrical Patients.

By Dr. O. P. Schaub, Roxboro, N. C.

It is not my purpose in the discussion of this paper to introduce any theoretical facts pertaining to the subject; but only present a few practical points that I have gathered

through personal observation.

So much has been said and written of late years concerning Duty, in all its relations, it is feared through common usage to have lost its true significance, but perhaps to no profession or individual does it disclose its real identity as to the physician; to him it is ever present, demanding time, constant attention and faithful application. Particularly is this true in obstetrics. From the time the physician is engaged until he discharges the case, his duty becomes a serious and sacred one. It is presumed and absolutely necessary that the physician be thoroughly informed in regard to his subject in all its phases, remembering that "knowledge is power," and the only true guide to action. Not only should he be familiar with physiological pregnancy, so that he may be able to give intelligent instructions to the patient regarding temperature habits, loose clothing and daily exercise; but he should be prepared to overcome any pathological conditions that may come under his observations.

Owing to a prevailing custom the great majority of pregnant women remain in-doors too closely, often to the detriment of their health and that of the child. We not only deplore this but denounce it as a foolish practice and exaggerated modesty. It behooves men as well as women to look upon this condition of women as one of nature's laws, divinely planned, and by a respectful manner and considerable air, help to keep the dignity of motherhood sacred and pure. It is our belief that our women in towns and cities could learn a valuable lesson from country sisters in regard to their manner of living during pregnancy. The latter, that is the generality of them do their house work and quite frequently attend to the needs of a large family; this necessitates exercise more or less of the entire body, promotes a development of the muscular strength, and suggests a healthy occupation of the mind; consequently they usually have few complications and bear strong, healthy children, while milady, isolated from her social duties, has only to think of her condition, and probably magnify the dangers attendant, until she is a nervous prostration awaiting the trying ordeal.

Some years ago the question of race degeneration and its causes was greatly agitated. Many theories were advanced, various comparisons made and numerous remedies suggested, but none appealed to me so forcibly as a remark of old ad lady rich in experience and in the possession of nine healthy boys, she said: "The trouble with the women these days is too little healthy work and too much horrid worry. You doctors should prescribe less medicine and

more sunshine and simple living." When we remember that she was speaking from her own experience, which no doubt would be corroborated by many of our grandmothers, and when we call to mind the experience of those who bore their children alone, estranged even from their husbands by the customs of their country, we are strongly inclined to agree with our old friend and accept her advice, notwithstanding the deleterious effect it might have on our purses.

As has been said, the physician, to a certain extent, is an honorary member of every family he attends and being cognizant of this distinction, he should endeavor to inspire his patient with confidence, so that he may become thoroughly acquainted with her condition and be able to forestall as much as possible any unfortunate sequel and to lessen the strain requisite to labor.

When a patient places herself under the care of the physician, she gives him a responsible duty to perform, therefore it is eminently proper that he should instruct her in regard to conception in cases in which the reproduction of a healthy living child is quite impossible, if possible would mean the sacrifice of the mother's life or at least her health. Some of these indications are syphilis, insanity, epilepsy, and their general condition in the mother which would be aggravated to such an extent that her death would be determined, or any cause greatly accelerated.

In the case of a woman who furnishes any indication just named, it is the imperative duty of the physician to inform the patient and her husband of all the consequences of impregnation under the circumstances, and if the matter is left with him to decide, he should insist that conception shall not occur.

The physician should familiarize himself with the subject of asepsis and pelvimetry, the mechanism of labor and moulding of the fetal skull in vertex, regma, brow, face and pelvic presentation. If the patient is in good condition at the time of labor, it is wise for the physician to prepare himself for any emergency, perhaps the labor is a long, tedious one, and is making no progress, the patient is also losing strength, in this instance it is expedient to call an assistant, administer chloroform and apply forceps.

Should the patient be tubercular or diabetic after having made frequent urinary examinations during pregnancy, which by the way is advisable in all cases, and should her vitality become lowered, and verging on a collapse, again we advise chloroform and forceps delivery. After the birth of the child, diligent search should be

made for laceration and other injuries that would retard a perfect recovery of the mother.

The physician should remember that his duty does not terminate as soon as patient is delivered, for in almost every case he should lay down rules and regulations to prevent sequels and maladies such as sore nipples, mastitis, retention of urine, constipation, sepsis in its various forms. Whenever it is practicable the physician should advise a trained nurse, particularly if there should be complications or the child a delicate one. We have often felt the need of efficient service, especially in the country where usually some "Granny" is employed. Generally she is too ignorant of sanitation to carry out instructions and too superstitious to give a baby but a thimbleful of water because as one old "Granny" remarked in my presence; "When he cuts his teeth he won't slobber but dat much."

This same paragon of knowledge, in her own estimation, was seen surreptitiously mopping baby's mouth with wet diaper and when reprimanded, she replied with a very superior air that it would keep him from having the "thresh."

The physician should instruct the mother concerning the formation of the child's habits, he should be taught a respectful obedience to nature's laws and the proper use of his bodily functions.

As we look to the coming generation to realize the ideals we have missed, the standards not yet attained, it becomes our duty to teach them the importance of clean, healthy bodies to aid them in establishing clean healthy morals.

Hydrocele and Spermatocoele, with Report of Cases.*

By W. L. Champion, M. D., Atlanta, Georgia.

Hydrocele, or an accumulation of fluid in the tunica vaginalis, being a condition we are so frequently called upon to relieve, so easily recognized, and as a rule so successfully cured by the injection of carbolic acid, I desire to report fifty-one cases taken from my record book; and also to include, on account of its rarity, three cases of spermatocoele.

When there is an accumulation of clear serous fluid in the tunica vaginalis, it is termed hydrocele; when the fluid contains blood, hematocele; and when spermatozoa are present, spermatocoele. There are several varieties of hydrocele: acute, chronic, multilocular, congenital, infantile, inguinal, and hydrocele of the spermatic cord. In this short article the various kinds will not

be described,—only dividing hydrocele into two classes: symptomatic and idiopathic. Symptomatic hydrocele follows a diseased testicle; idiopathic hydrocele develops without any known cause, or, not knowing the cause, this name is applied to the condition.

In the report to follow, ten of the fifty-one cases did not have any disease of the testicle or epididymis, nor did they give a history of gonorrhea or syphilis. The fact that so few males escape venereal diseases, and the possibility of injury being the cause, all hydrocele might be classed as symptomatic. With the patient in a dark room and a light behind the tumor, diagnosis is easily made if the fluid is clear; if not translucent and eliminating hernia, a hypodermic needle inserted will clear up the diagnosis; unless the hydrocele is very large, the testicle can be felt to determine whether it is sensitive, hard, enlarged, or nodular. As a rule, when a testicle is syphilitic there is fluid in the tunica vaginalis. In small hydroceles incision, aspiration, or tapping will occasionally perfect a cure, but in large tumors after tapping without injection, the fluid will gradually accumulate.

Casper in his text book on genito-urinary diseases states that the procedure of tapping and injecting irritating substances, such as tincture of iodine and carbolic acid, is not absolutely certain nor without danger; therefore, he favors the more radical operation by means of open incision.

Green and Brooks in their recent work on diseases of the genito-urinary organs state: "It has been a common custom for a great many years to inject into the sac through the trocar, a few drops of a powerful destructive agent, with the object of setting up an adhesive inflammation between the walls of the tunica that will cause them to adhere and thus prevent the re-formation of fluid. This method is sometimes successful, but personally the writers prefer one of the radical operations,"—that is incision. I have never seen any bad results nor toxic effects from the use of carbolic acid, and have injected a dram of the acid in a hydrocele sac. Keyes in late edition on genito-urinary diseases says: "After using carbolic acid injections in many cases ranging in age from two months to eighty years, in no case has any complication or serious reaction occurred in his hands."

I do the operation in the office, first cocaineizing the part to be punctured, which makes the operation painless, with the exception of the first effect of acid, which is a severe smarting pain lasting perhaps for a minute. Before introducing the trocar, the testicle should be located, so as to avoid injuring it. Some operators after emptying the sac through the canular, inject the acid

*Read before the Medical Association of Georgia at Fitzgerald, Georgia, April, 1908.

with a hypodermic syringe, inserting the needle at a location distant from the opening made to withdraw the fluid. The needle is inserted before the fluid is drawn off; after the fluid escapes through the canula, the syringe containing the acid is attached to the needle and the acid injected.

I prefer to empty the sac and inject twenty to thirty minims of the pure acid through the canula in the position it is in when the fluid is drawn, connecting the syringe with the canular, or preferably, using a needle a fraction longer than the canula, and passing it through the canula to the bottom of the sac, thus preventing the acid from coming in contact with the skin or escaping into the tissues. Before injecting the acid, care should be taken to remove all the fluid, as a small quantity left in the sac may cause the operation to result in failure. Immediately after injecting the acid, remove the canula and knead the scrotum so as to distribute the acid over the surface of the sac. Close the puncture with collodion, and request the patient to remain at home for twenty-four hours, as there will be some soreness and swelling due to reaction. A suspensory bandage should be worn until the scrotum resumes its natural size.

I believe the operation will always result in a cure without any complications if aseptically done, except in cases where the walls of the sac are very much thickened or the accumulated fluid results from syphilis or tuberculosis of the testicle.

Of the fifty-one cases here reported, twenty-eight had gonorrhea, or gave a history of the disease; ten gave no history of gonorrhea or syphilis; eight had syphilitic involvement of the testicle; four were tubercular and one cancerous. Three of the cases had double hydrocele. All of the eight syphilitic cases also gave a history of gonorrhea. Of the fifty-one cases, all were injected with carbolic acid except three of the syphilitic, the tubercular and cancerous. Three of the cases were tapped and never reported again. In three of the syphilitic cases injected, the fluid returned and they were injected again after being on anti-syphilitic treatment for a few months. After tapping a hydrocele, if the testicle is found to be enlarged, hard and irregular in shape, indicating syphilitic or tubercular condition, it is useless to inject carbolic acid. The patient should be put on proper treatment for such condition, and if the testicle is syphilitic, the hydrocele as a rule will disappear as the testicle becomes normal.

It is rare to find a cyst springing from the testicle or fluid in the tunica vaginalis containing spermatozoa. This condition is termed spermatocele, and is produced by inflammation of the seminiferous tubules,

thus causing retention of the semen in the constricted tube forming a cyst. Should the cyst rupture into the tunica vaginalis, the condition resembles hydrocele. On account of its rarity, without giving a detailed report, I mention three cases that have come under my observation. Two of the cases consulted me on account of an enlargement of the testicle. The first case in 1904, and the other in 1907. Both cysts were small, containing five or six drams of fluid alive with spermatozoa, and were cured by incision. The third case was seen by request of Dr. A. L. Fowler at the Federal prison. About two ounces of fluid of a milky appearance was drawn off, which under the microscope showed the field swarming with spermatozoa.

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Protection from Mal-Practice Suits.

By Dr. H. G. Nicholson, Charleston, W. Va.

It is customary to divide the factors involved in the causation of disease into (a) predisposing or remote, and (b) exciting, determining or immediate causes. In addition to this classification, for my purpose, I shall say the predisposing cause is internal and the exciting cause external. In the same way I might say mal-practice suits are due to two causes; that is, internal and external. The internal rests within ourselves, and may be an error on our part in the way in which the work is done, or may be due to lack of ability; although we do the best we know how. The external causes may be subdivided into two. First, from the patient himself, who fails to carry out your instructions, or who comes to you with the idea of having you do his work without his co-operation, and then bringing a suit for damages. The second external cause I will give as the shyster lawyer, that blue-bottle fly who hangs around every community, a dishonor to his profession and disliked not only by them, but also by all decent people.

Voltaire has aptly said that nothing is more estimable than a physician who, having studied nature from his youth, knows the properties of the human body, the diseases which assail it, the remedies which benefit it, exercises his art with caution, and pays equal attention to the rich and the poor. Judging from these words of the French poet, historian and philosopher, the physician, in the seventeenth century, as at the present time, was the same self-sacrific-

ing, overworked and unappreciated man.

As long ago as the fifth century, B. C., Hippocrates said "extreme remedies are appropriate for extreme diseases," and by applying this to the subject in hand, we can avoid almost all mal-practice suits by removing both the internal and external causes.

If we had some accurate means of collecting statistics regarding these cases, I venture to say that not more than twenty per cent. of the suits filed are due to the neglect or lack of ability of the attending physician, while the remaining eighty per cent. are due to the ungrateful patient, and the shyster lawyer. What is the remedy? In the first place, raise the standard of our colleges to the point, both morally and educationally, that none except good men in every sense of the word can enter. Then later have our Boards of Examiners, who are of us, watch and see that none except moral, educated physicians are allowed to practice. We screen our houses to keep out the disease carriers—the mosquito and the fly—and in the same way we should use our influence to have our lawyer friends of the higher class keep out that pest—the shyster. Another thing, watch your patient. I venture to say that ninety per cent. of mal-practice suits are a result of either ununited or badly set fractures. Have your patient report at your office often enough for you to watch the case. If he fails to turn up on the day you tell him, and is a week late, I caution you, watch that man. If, when he comes to you, he says mean things about his previous doctor, the first thing for you to know is that he still owes that doctor and fully expects to beat you; and secondly that he is one of the kind who sues.

Confucius, the Chinese philosopher, said twenty-five centuries ago, "what you would not others should do unto you, do not unto them." And several hundred years later Christ said, "Do unto others as you would have them do unto you."

If the public and the physician would remember that this is virtually our code of ethics, and at the same time remember the Hippocratic oath, "I swear by Apollo the physician and Aesculapius and health and all heal and all the gods and goddesses, that, according to my ability and judgment I will keep this oath and this stipulation. To reckon him who taught me this art equally dear to me as my parents, to share my substance with him and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this art if they should wish to learn it, without fee or stipulation. That by precept, lecture and every other mode of instruction I will impart a

knowledge of the art to my own sons and those of my teachers and disciples, bound by a stipulation and oath according to the law of medicine, but to none others. I will follow the system of regimen which according to my ability and judgment I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked, nor suggest any such counsel, and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Into whatever houses I enter I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females or males, of freemen and slaves. Whatever in connection with my professional practice or not in connection with it, I see or hear in the life of men which ought not to be spoken of abroad, I will not divulge as reckoning that all such should be kept secret.

While I continue to keep this oath unviolated may it be granted to me to enjoy life and the practice of the art respected by all men in all times. But should I trespass and violate this oath may the reverse be my lot."

Again, I say, if we would all, physician and patient, remember these unwritten laws of practice there would be less ground for suits.

No matter what steps we may take though will prevent all suits; and it devolves upon the Association to institute some plan by which to defend them. I can suggest no better plan than that recently adopted by the State Medical Society of Wisconsin, and I hope our Board of Councillors will adopt some such plan at this meeting.

It shall be the duty of the executive committee to investigate all claims of mal-practice against members, and if, in its judgment, the case is one which should be defended, to forward all papers connected with the case to the attorney of the society. Judgments, claims or statements against any member are not included in the plan. Each member of the State Society is to be assessed \$1 a year for the purpose. Only resident members in good standing whose dues for the year are paid in advance are to be entitled to protection. The success of this method and the general satisfaction of the members with it in New York, Pennsylvania, Illinois and other States is sufficient assurance that the State Medical Association of West Virginia will find this to

be one of the most effective methods of building up and maintaining an efficient organization, as well as of securing the active co-operation and loyalty of the members, that could be devised. Not only does this co-operative plan give the individual physician what he sorely needs; namely, competent, disinterested advice and guidance in time of trouble, but it has also been found without exception that the adoption of this plan by medical societies has resulted in a marked diminution of unnecessary and unjustifiable law suits and of the practical elimination of the shyster lawyer from this line of business. It is inevitable that in West Virginia, as in every other State in which a new plan has been introduced, there will be some opposition until the matter is understood and until the benefits are clearly seen. Having once been demonstrated, there is no doubt that this additional membership privilege will soon be highly prized by all members.

We will soon have in our Association about one thousand members, and at \$1.00 per year it would not be a great while before we had a surplus on hand sufficiently large to not only meet the costs of suits, but to also pay the indemnity in those lost to the profession.

Before closing my paper, not with any idea of craving the sympathy of the public, but that we may get justice from them, and be it a digression from my subject, I must remind them that medicine is no longer the field of men like Shakespeare's apothecary.

"I do remember me an apothecary,—
And hereabouts he dwells; whom late I noted
In tatter'd weeds, with overwhelming brows,
Calling of simples; meagre were his looks,
Sharp misery had worn him to the bones;
And in his needy shop a tortoise hung,
An alligator stuffed, and other skins
Of ill shaped fishes; and about his shelves
A beggarly array of empty boxes,
Green earthen pots, bladders and musty seeds,
Remnants of packthread, and old cases of roses,
Were thinly scatter'd to make up a show."

Since Jenner discovered vaccination, which has led up to the modern vaccines and serums; since Lister introduced antiseptic surgery, which has led up to our modern aseptic methods, and since Koch discovered the bacillus of tuberculosis and instituted his laws of bacteriology, medicine is now an actual science. The true physician always tries to cure his patient. It is he who tries to comfort the mother and help her to endure the pain when first we come into the world; it is he who is always ready to go through the heat of summer and through the snows of winter, giving comfort here and relieving suffering there; it is he who never goes to bed and expects to sleep the whole night through, and when

the sleep is lost knows he must go just the same on the morrow; and last of all it is he whom you expect to wipe the death damp from the brow of your loved ones.

Do you think his lot an enviable one? I do, because he loves his work, and sometime, somewhere, he hopes to find a place where there are no telephones, where there are feathery beds of ease and no shyster lawyers.

Rigor Mortis in the Stillborn.—Parkinson, in the British Medical Journal, calls attention to the scantiness of the literature on the question of the presence of rigor mortis in new-born children, as indicative of the child having breathed, *i. e.*, that it was legally alive. He mentions a few cases in his thirty-five years' experience as an English coroner, and makes these concluding statements:

1. Rigor mortis may set in, under certain conditions, before labor, and may pass off while the child is still *in utero*, and, possibly, may delay the birth in these cases until it passes away.

The Pretuberculous.—Bernheim and Dieupart (*Zeitschrift fuer Tuberkul.*) point out a condition which they call "pretuberculous," *i. e.*, a state of health where there is a predisposition to the infection of tuberculosis through alcoholic indulgence, syphilis, reconvalescence, anæmia, etc., but where infection with tuberculosis has not yet taken place. It is important to recognize this condition in individuals, in order that they may be made resistant to the tubercular infection by appropriate measures directed to raising their health to the normal.

A Method of Reducing Displaced Internal Semilunar Cartilage.—Jacob, in the British Medical Journal, states that in this condition, which usually occurs in consequence of a twist of the knee-joint, while in a state of flexion or fixation, the cardinal symptom is inability to extend the joint fully, any efforts in this direction being attended with pain; if reduced, the cartilage remains nipped between the tibia and the femur, the patient's walk being a limp, with the knee semi-flexed, while sooner or later synovitis is certain to occur. The method sometimes recommended is to forcibly extend the knee, but without an anæsthetic this is barbarous in the extreme, and even with one is apt to be followed by a severe synovitis.

He claims the following method is successful, practical and painless, and, if the patient has not made unavailing efforts to reduce the displacement or has not endeavored to walk, practically unattended with

synovitis. The patient lies on a bed or couch, the surgeon standing on the other side of the limb affected, with his face towards the patient's feet. The patient then raises his leg off the couch in the semi-flexed condition, the surgeon grasps the patient's leg in both hands, and, using his own thigh as a fulcrum, by means of a steady pulling motion draws the patient's leg outwards, while the surgeon's thigh keeps the femur in a fixed position; directly this movement is effected, the patient must steadily extend the limb, and the displaced cartilage will probably go back with a slight click; if the first movement of extension is not successful, the maneuver must be repeated without any hurry or unnecessary force, and, after a few attempts, the cartilage can usually be felt to slip in without pain or inconvenience.

The rationale of this procedure is that the levering outwards of the patient's leg reduces the resistance to the backward passage of the semilunar cartilage, which then slips back into place by the aid of gravity. In view of the frequency of accidents of this character, this procedure is recommended on account of its extreme simplicity, the absence of pain, and freedom from after effects.

Infection in Pyelitis.—Bond, in the British Medical Journal, states that there are reasons for believing that virulent micro-organisms may be carried along a healthy mucous canal with overcoming the resistance offered by the epithelial cells (if healthy) lining the tube, and that such organisms may be carried upwards (isolated in, and with their growth, possibly temporarily, inhibited by the normal mucus which lines the walls of the canal) to a portion of the urinary tract in which, owing to some stagnation or reversal of normal currents, or to some loss of resistance on the part of the epithelium, or possibly to some abnormality in the character of the protecting mucus, they can commence rapid and virulent growth. There are many examples of infection in which different organisms travel along mucous canals, such as the bronchi or the intestines, and only produce their pathological effect at the site of peculiar susceptibility or seat of election, such as the lower end of the ileum in the case of the typhoid bacillus, and when this organism (as frequently occurs) is excreted by the kidneys, little or slight inflammatory reaction is present locally in the kidney. The non-motility of the infecting organism in some cases of ascending pyelitis may be at first sight regarded as a difficulty on the supposition that the infection rapidly ascends the whole urinary tract, and first causes symptoms at the upper end or kid-

ney pelvis and in the absence of any evidence of extension of infection by contiguous growth along the ureter. The question of the mucous canal route of infection as against the blood-stream route, in the case of organs communicating by their ducts with the exterior of the body, is one of general interest. The gallbladder and the gall-ducts come into the same category.

A Method of Shortening the Time of Normal Labor.—Landau (Berliner Klin. Wochenschrift) mentions a new method of shortening the period of normal labor. When the pains have set in and the head is in the pelvis, one or two fingers are slipped into the cervical canal, and the effort made to stretch the cervix over the head of the child. Eventually, more than two fingers can be inserted. This procedure should be tried during one of the pains; it brings on new pains, and shortens the period of labor considerably. The procedure is of assistance because this stretching stimulates the nerves, and gives new impulses of contraction, pressing the head down with greatly-renewed force.

The following factors must be considered in this procedure: (1) Labor must be well under way. The cervix must be dilated; the head must be fixed in the pelvis, otherwise the position of the child might be changed; (3) the most absolute asepsis must be practiced, and for this procedure the use of the sterilized rubber glove is advisable. The outer genitalia must naturally be thoroughly disinfected.

While the procedure is old, yet it has been allowed to be forgotten, there being little, if any, reference to it in current literature, or in the text-books on obstetrics. Its use has been tabooed for the reason that it has generally been regarded as a dangerous procedure, principally on account of the fear of sepsis. Yet, more formidable cutting operations are repeatedly practiced during the course of labor without much fear of sepsis.

Nasal Catarrh.

The following spray, for use with an atomizer, has been recommended as a valuable means of preventing incrustation of the nostrils in nasal catarrh:

R	Menthol.....	gr. v.
	Camphor.....	gr. x.
	Ol. Eucalypti.....	℥. xv.
	Paraffin Liquid.....	℥ i.

Mix. Sig "The nasal spray. To be used frequently."

Mosquito Fever.

The Third International Sanitary Congress, at its session in the city of Mexico, adopted a resolution that malaria should hereafter be called mosquito fever, hoping in this way to facilitate the extermination of the mosquito.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE., N. C.

MEETING OF NORTH CAROLINA STATE MEDICAL SOCIETY.

The fifty-fifth annual convention of the Medical Society of the State of North Carolina was held in Winston-Salem June 16th to 18th, inclusive. The Twin City proved herself most hospitable, amply justifying every expectation or anticipation of the care worn doctor who always welcomes the opportunity for a slight relaxation from the routine of work and duty at home. If any of them failed to have a pleasant time it was no fault of those who had in hand the task of providing comfort and entertainment for the visitors. It was perfectly evident that every citizen of Winston-Salem had felt it incumbent upon himself or herself personally to make the strangers within their gates feel perfectly at home. In many ways it was a good meeting. There have been meetings in other towns at which the registration reached greater numbers, (the Charlotte session registered 406, this one 373) and there have been meetings at which a greater number of scientific papers were read, yet it is not every year that the same amount of business confronts the Society as there was at this meeting; and, although we venture to say there were 117 excellent papers among the 117 on the program, it is to be hoped that those who were not heard will still be just as enthusiastic and full of good thought and experience at the time for the next meeting as they are now.

The sessions were held in the Forsyth county court house. The Society was called to order Tuesday, the 16th, at 10:00 a. m., by Dr. W. O. Spencer, of Winston-Salem, chairman of the Committee of Arrangements. Prayer was offered by Dr. H. O. Brown, pastor of the First Baptist church, after which the mayor of the city, Hon. O. B. Eaton, was introduced. His speech of welcome was delivered in most eloquent words and he gave the visitors to understand that whatever they might want in the Twin City was theirs for the asking. He referred to the great accomplishments of the medical profession during the past few years, declaring that it stands second to none and calling attention to the great good done to the great mass of suffering humanity. Dr. C. L. Pridgen made response to the address of welcome in most appropriate manner.

The annual address of the President, Dr. J. Howell Way, of Waynesville, N. C., was full of interest to the whole Society. We comment elsewhere on his excellent paper, which is also published in this issue. No presiding officer who has ever occupied the chair of this Society has shown himself more capable and fair, more thoroughly honest and impartial than has Dr. Way. Indeed we consider him the strongest presiding officer (and we believe we speak without personal animadversion toward any) that has ever wielded the gavel as president of the North Carolina Medical Society. In the face of the very lowest manifestation of those whose ends he refused in most dignified manner to serve,—for upon at least one occasion there was heard most disrespectful demonstrations in the form of hissing at his decision upon important matters, he did not fail to conduct himself as the gentleman and accomplished parliamentarian that all know him to be. A number of times the decisions of the chair were appealed from, but each time the president was sustained by the general body. Cries of "Tom Reed," "Czar Reed," "Old Joe Cannon," were hurled in his face repeatedly and yet, amid all this turbulence and unruliness, Dr. Way maintained his calm, unruffled serenity, and the fact that he was vindicated in each instance by the opinion of the majority is evidence positive that his decisions could not have abrogated the rights of any, although he may not have been able to agree with all. As a forceful speaker he has no superior in the whole Society and the evident grace and ease with which he conducts himself in the chair elicited expressions of unqualified approval from the great majority of those present. No man in the State has to his credit a record of more faithful and unselfish devotion to the good and upbuilding of the medical profession in North Carolina than has Dr. Way. At no small detriment to his practice and financial aggrandizement he has unstintingly given of his time and boundless energy toward making the State organization what it is today—one of the best in the whole Union.

On the second day of the meeting the new Board of Medical Examiners were elected by the Society as a whole. The balloting lasted for several hours and resulted in the election of the following: Drs. J. L. Nicholson, Richland; H. H. Dobson, Greensboro; L. B. McBrayer, Asheville; W. W. McKenzie, Salisbury; B. K. Hayes, Oxford; John Rodman, Washington; John Bynum, Winston-Salem. It is to be regretted that it is impossible to so construe the law regarding the election of the Board of Examiners that the time of the Society

might not be taken up with this and other irrelevant matters. However, while it is evidently unfortunate that this is not left with the House of Delegates, as is the election of other officers, the fact that this election occurs only once in six years somewhat mitigates the necessity of having to sidetrack much of the splendid program which had been arranged for this particular meeting, after much effort on the part of the secretary and chairman of sections. The disappointment felt at not being able to present a paper after long and careful preparation for such an occasion cannot fail to result in the production of a tendency on the part of good men to feel less like writing papers. Perhaps the great majority of the doctors come to such meetings chiefly to find benefit in the papers read and to take part in the interesting discussions which are usually the best features of the sessions, but when they find the time of the general meeting consumed unnecessarily to the partial or total exclusion of scientific matters it is, as we have already said, at least fortunate that such could happen only once in six years.

A later report from the Secretary of the new Board gives the information that those elected to serve during the next six years (1908-1914) have met and organized with the following results:

Dr. Jno. C. Rodman, Washington, President, Chemistry and Diseases of Children.

Dr. Lewis B. McBrayer, Asheville, Surgery.

Dr. Wm. W. McKenzie, Salisbury, Anatomy and Histology.

Dr. John Bynum, Winston-Salem, Obstetrics and Gynecology.

Dr. J. L. Nicholson, Richland, Physiology and Hygiene.

Dr. H. H. Dodson, Greensboro, Practice of Medicine.

Dr. Benj. K. Hays, Oxford, Secretary-Treasurer, Materia Medica.

The memorial exercises at the night session on Tuesday were devoted chiefly to the late lamented Dr. P. L. Murphy. The following papers were read: "In Memoriam, Patrick Livingston Murphy, Late Superintendent of the Morganton State Hospital," Dr. R. H. Lewis, Raleigh, and Dr. G. G. Thomas, Wilmington. "Life and Work of Dr. P. L. Murphy," Dr. G. M. Cooper, Clinton. "A Tribute to Dr. Joseph Graham," Dr. H. T. Bahnson, Winston-Salem.

Papers deserving special mention were those of Dr. C. W. Stiles on "Hook Worm Diseases," Dr. Tait Butler on "Milk Supplies in Relation to the Public Health"; Dr. L. B. McBrayer on "The Importance of the Work of the General Practitioner" (mentioned elsewhere) and Dr. J. A. Hodges

on "The Results of Surgery as Seen by the General Practitioner, not being an Adverse Criticism." The Symposium on "Pellagra," upon which papers were contributed by Drs. E. J. Wood, of Wilmington, John McCampbell, of Morganton, and C. L. Lavinder, of Wilmington; showed that there are doctors in North Carolina who are doing original work along special lines and justifies the belief expressed by Dr. McBrayer that the workers at home are just as capable of carrying on original investigation and accomplishing great results as are those of other parts of the country.

At the instance of Dr. Way who temporarily vacated the chair to present some strong resolutions signed by himself and Dr. Laughinghouse condemning improper exercise of the whiskey prescription privilege, the House of Delegates unanimously passed a resolution advising the Board of Examiners to revoke the license of any practicing physician who is found violating the prohibition law by promiscuously writing prescriptions for whiskey.

The House of Delegates elected the following officers: President, Dr. J. F. Highsmith, of Fayetteville; first vice-president, Dr. C. M. Poole, of Salisbury; second vice-president, Dr. D. G. Dees, of Bayboro; third vice-president, Dr. D. A. Garrison, of Bessemer City; Orator, Dr. Chas. W. Moseley; Essayist, Dr. W. L. Dunn; Leader of debate, Dr. L. B. Newell; Councillor of fourth district, Dr. E. T. Dickerson; Delegates to A. M. A., Dr. J. Howell Way, A. J. Crowell 2 years; Dr. D. A. Stanton 1 year; alternates, Drs. P. J. Thomas, D. S. George, and H. H. Dodson.

The following committees were announced:

Finance—Dr. H. S. Lott, Dr. R. E. L. Flippin, Dr. J. M. Blair.

Obituary—Dr. Chas. A. Julian, Dr. A. A. Kent, and Dr. S. T. Nicholson.

Publication—Dr. E. C. Register, Dr. W. H. Wakefield, and Dr. D. A. Stanton.

Public Policy and Legislation—Dr. R. H. Lewis, Dr. Geo. T. Thomas, Dr. Albert Anderson, Dr. J. F. Highsmith, and Dr. D. A. Stanton.

Science—Dr. John Bynum and Dr. W. S. Rankin.

Delegates to the Mississippi Valley Medical Association—Dr. W. O. Spencer, Dr. William R. Hicks, Dr. W. J. Stevens, Dr. Cyrus Thompson, Dr. W. D. Pemberton, Dr. J. H. Shuford.

Delegates to Virginia Medical Society—Dr. J. L. Doughton, Dr. James J. Phillips, Dr. J. M. Williams, Dr. F. H. Gilreath, Dr. S. C. Heighway.

Delegates to South Carolina Medical Society—Dr. W. D. Witherbee, Dr. D. N.

Dalton, Dr. J. F. McKoy, Dr. Earle Grady.

Dr. Thomas E. W. Brown, of Asheville, was elected chairman of the local committee on arrangements for the next meeting, which will be held in that city June 15th to 18th, 1909.

The new president, Dr. J. F. Highsmith, of Fayetteville, is a physician who is most eminently fitted to occupy the position of highest honor in the gift of the Society. A graduate of Jefferson Medical College he has for the past fifteen years been a member of the State Society. He has proved himself a most capable physician and his success need not be mentioned. As the proprietor of the Highsmith Hospital at Fayetteville he is known throughout his own State and indeed far beyond its borders. As a surgeon he has attained to the very highest success and those who know him will not fail to agree when we say he is a gentleman and a doctor of the very best and highest type. He well deserves the honor that has been bestowed upon him. Dr. Highsmith has regularly attended the meetings of the Society and the enthusiasm and energy with which he has participated in the work has proven him worthy of any reward. The Journal congratulates both the President-elect and the Society and bespeaks for his administration the co-operation and zeal of the membership in continuing the affairs of the Society upon the high standard fixed by his predecessors.

**THE NEW NORTH CAROLINA STATE
BOARD OF MEDICAL EXAMINERS
1908-1914.**

Away back in 1859 when the legislature of North Carolina enacted the original statute creating the State Board of Medical Examiners it was provided that the Medical Society of the State should elect from among its members seven physicians every six years who should constitute the Board. In thus placing this important responsibility of guarding the doors of the profession upon the membership of the profession, there can be no question that the legislative body did a most wise and proper thing, and it has often been remarked as a matter of just surprise that the legislatures of so many other States in emulating the wise example of North Carolina in establishing a State Board of Medical Examiners should not have seen fit to follow also the example of placing the responsibility for the personnel of the Board upon the profession itself, instead of doing as is usually done in most of the States, having them appointed by the Governor, in some instances from a greater number nominated by the profession. At the recent annual session of the State Society in Winston-Salem a full Board of seven

were elected by the General Session of the State Society to serve for the term from 1908 to 1914.

Ordinarily all elections, and other business of the Society is transacted in the House of Delegates, but this special feature of the session's work was for good and proper reasons, apparently, attended to in the General Meeting, all members present having a hand therein to their evident gratification, even though it did take half a day's time from the due consideration of the already over-crowded scientific program. But it was argued it "occurred only once in six years, and we could spare the time."

Twenty members of the Society were placed in nomination in short speeches on Wednesday morning, the second day of the session, and their names were posted upon a large black-board in full view of the Society, and tellers being appointed, a ballot was had, each member voting for the seven examiners on one ballot. Upwards of two hundred members were present in the hall and voted, this being actually a larger number of the members of the State's medical profession than was ever in the history of the Society registered as being present at any meeting of the Society until the re-organization in 1903. On the first ballot five examiners were elected; on the second another; and on the third ballot the seventh examiner was elected. Of the thirteen gentlemen voted for, but failing of election, it is just and proper to say they, with those elected, represent the flower of the State Medical Society—in fact as a well-known member of the Society who has enjoyed its every honor remarked about the time of the initial vote, when looking at the names posted on the black-board, "North Carolina and the profession will be well served. It is impossible to elect an indifferent, or a poor Board of Examiners from that list. It is a fine selection of men."

The new Board met and organized, electing their own officers the same day of their election by the State Society, and are now in full charge of the medical examination and licensure privileges in this State.

The personal equation of a new Board of Examiners is always a matter of some interest, and by way of affording some information along this line we note that the President and Secretary are each 37 years of age, and have been in active practice 15 and 13 years respectively. The other five members range in age from 39 to 56 years, and average in age 46 years; and in practice of their profession range from 14 to 33 years. The average age of the entire Board is about 43 years, and their average years of practice is 19 years. The examiners

come from all sections of the State and are in the main conveniently located. As representatives of the various medical schools of the country it may be noted that New York colleges graduated 3; Philadelphia 1; Richmond, Va., 2; and Louisville, Ky., 1. The colleges of the various gentlemen voted for in the election of the Board was wholly unconsidered as is evidenced by the fact that the medical college which has a larger number of graduates in the State Medical Society than any other has not a single one of its graduates on the new Board. This latter fact is mentioned at this time as tending to show that as regards the question of school of graduation, the profession of this State, and its efficient Board of Medical Examiners, do disregard, and have at all times entirely disregarded, the question as to what college a degree was obtained from if the physician be a capable and competent doctor.

The new Board of Examiners is in point of average age probably the oldest Board the Society has ever elected. In the personnel of its membership it is of the very best material the profession has; and in the careful and critical discharge of its important, laborious and responsible functions to both State and profession, it deserves and should have the sincere and cordial support of every member of the component county Societies of North Carolina.

RESOLUTIONS RELATING TO THE PRESCRIBING OF INTOXICATING LIQUORS BY PHYSICIANS IN NORTH CAROLINA UNANIMOUSLY PASSED AT THE REGENT SESSION OF THE STATE MEDICAL SOCIETY IN WINSTON-SALEM, JUNE 16, 17 and 18, 1908.

Dr. Way vacated the President's chair and on behalf of himself and Dr. Laughinghouse introduced the following and moved their adoption:

Whereas, the people of the State of North Carolina have by a large majority vote recently ratified an act which after January 1, 1909, makes illegal the sale of intoxicating liquors in North Carolina except upon physician's prescriptions.

Whereas, the legislature of North Carolina, in framing the prohibition law, did evidence great confidence in the medical profession of said State by placing in the hands of said profession to an extent the success or failure of the law in that the members of the said medical profession are given the right to prescribe spirituous liquors at their discretion;

Therefore, be it resolved

1st. That the Medical Society of the State of North Carolina in fifty-fifth regular annual session assembled do hereby condemn as unprofessional and grossly immoral any

lax or unfaithful conduct in its members in the exercise of the privileges conferred in this law.

2nd. That the Medical Society of the State of North Carolina respectfully urges upon all the physicians of this State, whether members of this Society or not, to join us in demonstrating to the people that the members of the medical profession can be relied upon implicitly to perform their full duty in aiding in the enforcement of the prohibition law and in building up a public sentiment that will ensure protection against an illegal traffic in intoxicating liquors.

3rd. That the Medical Society of the State of North Carolina respectfully urges upon the Board of Medical Examiners of the State of North Carolina the manifest duty of revoking the license to practice of any physician who may be proven guilty of abusing the privilege accorded him in the prescribing of intoxicants.

J. HOWELL WAY.

CHAS. J. O'HAGAN LAUGHINGHOUSE.

Unanimously adopted by vote of the Society and ordered given to the press of the State for publication.

J. HOWELL WAY, President.

D. A. STANTON, Sec'y.

While there were honest differences of opinion among the strong and able men of the North Carolina medical profession as to the advisability of voting the enactment of the recently passed prohibition statute which takes effect January 1, 1908, since the people have by a referendum vote enacted such a law, the leaders of the profession are now standing firmly in line for a rigid and honest enforcement of the prohibition law. In addition they are developing a movement among the members of the guild which has for its object not only the encouraging of the weaker members of the profession to stand firmly and honorably in aiding the enforcement of the prohibition statutes, but to punish as well by revocation of license those physicians who forgetful of personal and professional self-respect foolishly allow themselves to be made conveniences by patrons who desire to use their medical signatures to abet their violations of the laws in purchasing intoxicants to be used as beverages.

At the recent session of the State Medical Society held in Winston-Salem, N. C., last week strong resolutions expressive of the sentiment of the medical profession relative to this important matter were introduced by Dr. J. Howell Way, of Waynesville, the President of the Society, and also signed by Dr. Chas. J. O'Hagan Laughinghouse, of Greenville, an honored ex-President of the State Board of Medical Examiners. These resolutions which the President temporarily

vacated the chair to introduce in the House of Delegates, were unanimously adopted, and later presented to the General Meeting of the Society, which alike adopted them without dissenting voice, are direct and to the point, expressive of a decided stand upon this matter by the organized medical profession of this State.

The acknowledged prominence of these two gentlemen in the affairs of the North Carolina medical profession, and the unanimous adoption of the preamble and resolutions, afford a most convincing argument that the reputable doctors of North Carolina are determined not only to stand squarely for the maintenance of their professional honor, but are earnestly endeavoring to extend a helping hand to the weaker members of their profession who may (and will be) tempted to accede to the requests for liquor prescriptions of acquaintances who desire to avail themselves of the physician's special prerogatives in securing intoxicating liquors for beverage uses. Likewise it is also to be taken as an earnest that the men who set the standards of this most noble of professions have a keen appreciation of the grave responsibility resting upon licensed physicians, and propose to call upon the State Board of Examiners to revoke the license of doctors convicted of violating the provisions of the prohibition statutes as relating to the profession. Such a movement on the part of the State Medical Society is to be commended, and will tend to heighten both public and private respect for a profession already noted far and wide for the esteem and appreciation in which its members are held by a generous clientele.

ATLANTA COLLEGES WISH TO BECOME PART OF UNIVERSITY.

The petition made by the Atlanta College of Physicians and Surgeons and the Atlanta School of Medicine to be made a part of the University of Georgia has brought out most strenuous opposition on the part of Augusta Medical College which has for many years been a part of the University. The Atlanta schools have many strong arguments with which to back up their petition. Located in Atlanta, one of the largest cities in the South, where between 25,000 and 30,000 patients are treated in out-patient department alone, with splendidly equipped new buildings worth \$250,000, an annual income of \$46,500, an alumni roll of 4000 names, and a student body of 535 men these schools offer much to the University. The object in view they declare is the upbuilding of the University and the desire to make it the equal of any in this country. The requirements set forth by the American Associa-

tion of Medical Colleges make it obligatory upon medical schools to demand of matriculants a certain preliminary education. The Atlanta college wishes to be in a position to meet this requirement. With the assistance of the university they can take this stand at once, and thus force other Southern medical colleges to follow the example.

This is the motive of the Atlanta college. They are giving much and asking little and the proposal is not made because of any necessity, as the Atlanta college has been well established on a firm financial foundation, and is offering a college thoroughly equipped, which has a large number of students, very valuable property, a large and strong corps of professors, and as good a reputation as any other medical college in the South Atlantic States.

A STATEMENT.

On the 15th of May, Mr. J. J. Wootton, advertising and subscription manager of the Charlotte Medical Journal, sent to this office an advertisement of the Biggs Sanitarium, Greensboro, N. C.

The advertisement was not read by the editor or by any one connected with this Journal who might have recognized its unethical character, and since those through whose hands it passed knew nothing of Mr. Biggs' history, the advertisement found its way into our columns without those who passed it having any idea that it was irregular. Of course Mr. Wootton, a layman, would not know much about medical ethics, consequently he accepted Mr. Biggs' advertisement without any investigation.

A few hours before leaving Charlotte for the Winston meeting of the North Carolina Medical Society I received two letters from two Greensboro physicians, calling my attention to Mr. Biggs' objectionable advertisement. Then I read the advertisement for the *first time*, and fully realized that a mistake had been made, and that the advertisement should not only never have appeared, but should be eliminated as soon as practicable.

On my arrival at Winston I made the above explanation to Drs. Dodson, Turner and Williams, all of Greensboro. Later I learned that they, with several other Greensboro physicians, proposed to bring the matter before the Society. On the last day of the convention, when a majority of those in attendance upon the session were absent, and after I had left for Charlotte, the matter was brought before the general meeting, and condemnatory resolutions passed, without my explanation being mentioned or heard.

The Charlotte Medical Journal has always

stood for high ideals in medicine; its policies have always tended to build up the medical profession of the South, and especially of North Carolina. It has made many mistakes; it has fallen short in many instances, but its intent to do good has certainly always been apparent.

Whenever any physician, anywhere in this Southland, wishes to criticize the methods of the Journal, if he will do so in a friendly, brotherly-like manner, he will be listened to, and what he has to say and whatever suggestion he has to make will be given a most careful consideration.

To the Members of the Medical Society of the State of North Carolina.

EDW. C. REGISTER, Editor.

INDIGANURIA.

The presence in the urine of a blue coloring matter was discovered as long ago as the time of Hippocrates. In 1840 Prout discovered a substance in urine which he called indigo, and for many years it was thought to be identical with the indigo of plant life which is a glucoside. However, in 1879 Baumann and Breiger proved conclusively that indican is a combination of a conjugate sulphur of a hydroxylated indol with an alkali. Since that time a great deal has been written on the subject so that now we have a relatively clear idea of its origin and formation.

Slowtzw divides indicanuria into three forms: First, that due to intestinal fermentation and putrefaction; second, that due to suppuration in some other part of the body; and third, that due to the formation of indol in the cells of the body tissues. In the intestinal form the indican reaches its maximum four or five hours after ingestion of food. In the septic type it is increased in the evening and is relieved by removing the septic focus. In the metabolic type indicanuria is moderate and occurs uniformly throughout the twenty-four hours. However, the general consensus seems to indicate that indican in the urine depends exclusively upon the production of indol in the intestinal canal and its absorption from these parts except in those cases in which some septic focus exists.

Flint and others assert that indol is formed by the action of trypsin upon proteid matter. Herter denies this since indicanuria has been produced in animals from which the pancreas has been removed and has been shown to have existed in persons in whom, at autopsy, both biliary and pancreatic ducts were found to be occluded. MacKee concludes that, in the light of the above facts and recent experiments with intestinal antiseptics and with organized and unorganized ferments, indol owes its

origin to the action of certain bacteria upon the proteid food in the intestines. He says, however, that "considerable knowledge is still wanting regarding the action of individual members of the intestinal flora upon the formation of indol." Having been formed, indol is absorbed from the intestine, combines with sulphuric acid and potassium and appears in the urine as indoxyl potassium sulphate or indican. Just where this combination occurs is not definitely known, but investigation seems to indicate that most likely the process takes place largely in the liver. Herter and Wakeman have shown that the body cells, and especially those of the liver and kidney, but also the epithelial cells of the intestine, possess the power of oxidizing and pairing off these substances. Peptone and Pagano conclude that the body depends largely upon the liver for protection against poisons originating in or absorbed from the intestinal tract. The epithelial cells lining the intestine are the first barrier, then the liver cells act upon substances brought to them by way of the portal system. Toxines that escape the action of both the liver and intestinal cells are acted upon by the lungs, and the leucocytes likewise play a part. There are a great many toxic products which originate in the intestine, the nature of which are not well understood, nor do we know the exact manner in which they exert their deleterious effects upon the organism. Richard, Howland and Lee have proved, however, that indol is toxic to the animal organism, and MacKee, from whose article in the New York Medical Journal we have culled most of the facts herewith presented, has given a most interesting and instructive discussion of the manner in which these effects are produced, together with the diagnosis and treatment of the condition arising from the excessive production of this toxin in the intestine.

After all Metchnikoff may be right in his theory that we have too much intestine, that the bacteria which inhabit the gut are responsible for man's susceptibility to gastro-intestinal disorders, and for his short life.

KERNIG'S SIGN IN MENINGITIS.

In 1882 Kernig called attention to the sign to which his name has since that time been applied. Netter in 1898 published a paper on this sign and since that time various observers have estimated it as being of greater or less value as a pathognomonic indication of the existence of meningitis. Kernig's sign consists in the inability to extend the leg fully on the thigh, when the thigh is at a right angle to the trunk, or to flex the thigh to a right angle with the trunk when the leg is extended. It is in-

IS CANCER CONTAGIOUS?

voluntary and is not accompanied by, or due to, pain. Kernig considered that the sign was not positive unless the angle was 135 degrees or less. Others have placed the limit at 120 degrees, or even at 115 degrees. The angle of the thigh to the trunk is sometimes measured, and sometimes the angle of the leg on the thigh.

Sainton and Voison believe the sign is a reflex phenomenon resulting from the action of the excito-reflex cells of the spinal cord under various influences.

Morse in his observations on 2000 babies under two years of age, on whom he sought for the presence of the Kernig's sign concludes that "it is almost never found in infancy, either in health or disease, except in meningitis. It is found so rarely in other diseases at this age that its presence in an acute disease justifies, as far as any one sign can, the diagnosis of meningitis. It is never present, however, in some cases and in others it is present only intermittently. It occurs with equal frequency at all stages of the disease. It has no apparent connection with the degree of intracranial pressure. It is more often present when the knee-jerk is increased than when it is diminished. It is of no value in the diagnosis between the tuberculous and cerebro-spinal forms."

Koplick likewise states that as a diagnostic element in forms of meningitis in infants Kernig's sign possesses very little clinical value. He says that its absence is the rule in tuberculous meningitis. He found it in but twenty-two out of fifty-two cases. Nevertheless he believes that it is a valuable sign in other forms.

In looking for this phenomenon it is well to remember that there is normally a slight rigidity of the flexors in the newborn and a tendency for the extremities to take the intrauterine position. In addition Hochsinger describes three forms of myotonia which occur in infancy as the result of severe diseases of long duration, especially chronic gastro-enteric affections and congenital syphilis. In the first there are intermittent tonic contractions of the muscles of the extremities; in the second, persistent symmetrical spasm of the flexors of the hands and feet and stiffness of the flexors and adductors of the extremities; in the third, the muscles of the trunk and neck are involved, a condition resembling tetanus being the result.

If, however, the position of the leg on the thigh be noticed when the thigh is extended no mistake should be made as in the above mentioned conditions the angle of the leg to the thigh does not change when the thigh is flexed on the body.

Few of us realize the frightful toll of human lives exacted by that dreadful disease, cancer. Periodicals, scientific and lay, impelled by the active campaigns which are being organized throughout the whole country, and indeed throughout the civilized world, have been and are filled with statistics of the fearful mortality of tuberculosis. So common indeed is the knowledge of these figures that one frequently hears even among the laity the statement that one-seventh of the human race die of tuberculosis in some form. Yet few people know that cancer has a death rate to its credit that is not very much less than that of tuberculosis. According to Copman in Europe and America one person out of ten who are over thirty-five years of age will die of cancer. Park says that in New York State, during 1907, seven thousand people died of cancer—more than half as many as were victims of tuberculosis. What is true in New York State is an index which in all probability would apply to other portions of America. No subject is today engaging the attention of scientists the world over with greater concentration than that of the causation of cancer. Their energies are directed not solely, but certainly with unusual activity, toward the elucidation of the only problem which offers any hope that medicine may ever possess the means of curing the disease. Once man has found the cause of pathological states he has approached very near to the promised land where no such disease shall ever exist. Medical and scientific journals have given prominent place during recent years to the reports of investigators who are working along these lines, and yet after one has studied over the field in which so many theories find place the feeling comes that among so many there is no way of knowing what the truth may be. In after years when successions of seekers after truth shall have advanced closer and yet more closely, each profiting by the work of his predecessor until finally we shall know; then we will perhaps realize that many have moved within the veil, have been very near the truth, yet without perceiving it. *Apropos* of these remarks we would call attention to a most excellent article by Dr. Roswell Park, published in a recent number of the *American Journal of Surgery*. After a brief resume of the commonly accepted theories which have prevailed concerning the etiology of cancer in the teachings for many years, he calls attention to those who in times past believed in the contagious nature of cancer. Tulpius, Junker, and Harvey considered the disease contagious, and in later years a great deal of work has been done towards

establishing a connection between cases which occur in certain localities. The existence of so-called cancer-houses in which several cases have successively occurred has in more than one instance furnished a basis for belief in its transmissibility. Dr. Park has expressed himself unequivocally in favor of the contagious nature of cancer and as a result of this belief he advances strong arguments to show that the disease is due to a parasite.

As indicative of contagiousness the development of cancer along the path of a trocar after tapping the belly to relieve the ascites of a patient who has cancer of the liver, or along the incision made by a knife which has accidentally entered the cancer, in operations for its removal, thus producing a linear form of the growth certainly have some significance. The question is asked whether these are mere accidents, and again the diffusion of cancer along nerve trunks as a result of injury, the transmission of the growth to an adjacent surface, as often happens about the mouth, vulva, conjunctiva, the occurrence of cancer of the stomach secondary to a growth in the œsophagus, the transmission of cancer to the lip by means of the finger nails of the individual who was handling his cancerous ear are all cited in support of the theory of its contagiousness. Constant irritation, such as is familiarly believed to occur in chronic smokers or because of the existence of a rough, jagged tooth, bear only this relation to the development of cancer of the lip or tongue, viz: a sufficient port of entry is thus opened up for the contagion. And considering how many things come in contact with the lips, and interior of the mouth, if there be furnished open ports of entry it is very easy for parasites to enter. Experimentally the contagious nature of cancer has received very strong support in the occurrence of the disease in the lower animals. In dogs it has been transmitted to the genitals during coitus. Dr. Park cites the experiences at the laboratory at Buffalo of the mice used in the work carried on there. During a period of eighteen months sixty-three cases of spontaneous tumors occurred among the seven thousand mice bred at this place. Some years ago a spontaneous sarcoma of the thyroid occurred in a white rat from which several others were successfully inoculated. The cages in which these rats lived were afterwards stored away unused for two years. Healthy white rats were then placed in these same cages and within a short time several developed sarcoma of the thyroid. These but imperfectly convey an idea of the arguments of Dr. Park that cancer is contagious.

The causes he classifies as *intrinsic* and

extrinsic. The *intrinsic* causes are more or less familiar, but Dr. Park believes thoroughly that the cause is to be sought as arising external to the organism.

TYPHOID CARRIERS.

No subject is engaging the attention of the medical profession more than the recently discovered method of transmission and dissemination of typhoid germs by people apparently in perfect health. For years it has been known that, during an attack of typhoid fever, the germs which are the active causative agents of this affection are present in the excreta of patients suffering with this disease. Upon this knowledge have been based all our ideas of the spread of typhoid fever. The contamination of water and milk has been long considered the chief means by which it is disseminated and practically all prophylactic measures have been therefore directed toward the thorough and efficient disinfection of the discharges from a typhoid patient during the course of the disease. For the good of other individuals and the community at large there is not a doubt but that such means do prove effective in preventing the occurrence of many cases of fever, for the dictum that every case of typhoid fever has its origin in some other case has too long ago been universally accepted and believed to admit of any doubt. So thoroughly indeed has the belief that typhoid fever is spread through the medium of water, milk, &c., and so firmly has the theory that the disease is preventable become fixed that the time is not far gone by since it was considered that an epidemic of typhoid fever was a positive reproach to the medical profession and to the health authorities of any community. We have heard it said more than once that the prevalence of this disease is an index of the sanitary intelligence of a people.

However, within the past few years it has become positively known that healthy persons are capable of carrying virulent typhoid bacilli in their bodies without themselves feeling the effects of the presence of the germs and without giving the slightest evidence clinically that the micro-organisms exist in their discharges in enormous numbers. This is no fanciful theory, for positive demonstrations which admit of no shadow of doubt have proved the truth of the discovery.

Numerous cases have been reported in which the presence of a certain individual in a family or household was invariably followed by an outbreak of typhoid fever. In other cases its occurrence in certain institutions was demonstrated to have been caused by the presence of a carrier among

the inmates—an individual who presented a history of typhoid fever, perhaps years previously, and whose excreta was found to contain the germs in great numbers.

Conradi believes that at least five per cent. of people who suffer from typhoid fever become chronic bacillus-carriers. Dr. L. F. Barker, of Baltimore, has presented a most interesting and scientific discussion of this subject in a paper published in the May issue of this journal. It will repay every doctor to study this paper and to understand it. It will aid him in his attempts to account for some cases of typhoid which otherwise have been inexplicable.

The existence of these chronic bacillus-carriers will be recognized at once as a distinct and constant menace, and one against which it is exceedingly difficult to take precautions. And it does not add greatly to our sense of security when we realize that Conradi has proved that the bacillus of Elberth can appear and multiply in the intestinal canal of persons who have never had the disease. His observation has been confirmed also by others. They find that typhoid bacilli are eliminated in the feces and urine of persons who are still apparently in perfect health and do not come down with the disease for so long a period, sometimes, as three weeks. It appears, therefore, that it becomes highly important that not only the excreta of the patient, the convalescent and the person who has recovered be handled in such manner as to prevent dissemination of the germs, but also those of persons who have been exposed to the disease and have not yet shown symptoms of it. Here is a problem to be solved!

JACKSONIAN EPILEPSY.

The use of the term cortical epilepsy, or Jacksonian epilepsy, after Hughlings Jackson who first described the condition, has nothing in common with classical genuine epilepsy except in name. The epileptiform seizures are due to cortical lesions and show certain fundamental differences from the classical attacks. Consciousness is retained and this gives the whole attack an entirely different aspect. A certain kind of aura occurs, either a slight twitching of the fingers or toes, or formication and other parasthetic symptoms always in the affected extremity. All the other symptoms such as the cry, the fall, the biting of the tongue are absent. The patient sees and watches the twitching of an extremity; in some cases he suffers violent pains; and he tries to hold the extremity in a fixed position or begs others to do it for him, and attempts to avoid injuring himself. The convulsion over the patient feels weak and unstrung chiefly in consequence of the increased muscular work. Headache and all the

various post-epileptic symptoms are absent, or, at any rate, are not connected with the attack as such.

The degree, the duration, and the frequency of the attacks vary considerably. Sometimes only a more or less marked twitching appears in the affected limb; sometimes, however, the attack manifests itself in shaking movements, which may become so violent that the bed shakes and the patient anxiously cries for some one to assist him. If pains have been present during the attack, they are apt to persist afterwards, often produce great suffering, and are combined with the motor weakness of the affected parts which invariably exists. Attacks last from a fraction of a minute to a quarter of an hour or even longer. When they occur at frequent intervals—several times a day—the state of the patient becomes pitiable, and his usefulness and ability to occupy himself at any work may be interfered with to a much greater extent than in case of the classical epilepsy. In some cases months intervene between attacks. The course of cortical epilepsy is chronic; the patient suffers for years without there being any other symptom present. Death occurs as a result of an extension of the brain lesion, or as a result of some intercurrent disease.

With reference to the diagnosis, it must be remembered that cortical epilepsy may be simulated by uræmic convulsions, provided the latter be confined to one side. Attacks which resemble Jacksonian epilepsy very closely may also occur in hysteria. In such cases other hysterical manifestations prevent an error in differentiation. According to Wendel, Jacksonian epilepsy is frequently the initial symptoms of General Paresis.

CARDIAC ASTHENIA.

That the nervous system may cause a special cardiac syndrome is comparatively little known. Huchard was the first who in 1892 called attention to a symptom group caused by asthenia of the heart. This organ may be originally insufficient just as the liver, thyroid, adrenals, brain and spinal cord.

Individuals thus affected complain continuously of their heart, while the objective examination reveals no organic lesion. Palpitations set in a propos of digestion, fatigue or emotion. *Intermittence* is not infrequent, and arrhythmia may become permanent. The pulse is depressible, often rapid. Dyspnoea appears upon the least effort. Gradually the apparent insufficiency becomes permanent and occasional attacks of so-called *nervous asystole* occur. The latter consists of a sudden disturbance of cardiac innervation manifesting itself in a

small and filiform pulse, alternating tachycardia and bradycardia, precordial anxiety, sweating and a great mental anxiety with fear of imminent death. Cardiac asthenia therefore is characterized by a diminution of power of the nervous apparatus of the heart. The pneumogastric and sympathetic nerves with their bulbar centres are therefore involved. The insufficiency is probably structural and its aggravation is produced by fatigue, infection or toxic state.

General measures, such as proper hygienic and moral surroundings, avoidance of fatigue, of stimulants usually do good service, but sometimes they are not sufficient. Among remedies advised, digitalis, strophantus are the best. Recently A. Deschamps (Presse Medicale, No. 40, 1908) had recourse to a very ingenious mode of treatment of cardiac asthenia. It is based upon a good anatomical and physiological knowledge of the cardiac innervation.

The motor branch of the vagus is distributed in the skin of the back. If a stimulating fluid is injected into the skin of the back, it enters into relation with those nervous filaments and through the latter produces a stimulating effect upon the centre of the vagus. The action is not only mechanical but also trophic. All injections have a general and local effect; the latter is greater the nearer the injection is made into the areas involved. Neuralgia, for instance, can be removed when a certain sedative fluid is injected in the vicinity of the diseased nerves. The cardiac asthenia is characterized by a deficiency of its motor nerve, and as the latter is accessible in the dorsal region, it is there that it can be attacked.

Physiology teaches that the right vagus has more effect on the heart than the left. Deschamps basing himself upon these facts utilized the right side of the dorsum for his injections. He found also that a similar injection in any part of the dorsum produces analogous effects upon the heart, but the right side is to be preferred, as the results are the most satisfactory.

He used glycerophosphate of soda (50 per cent.), cacodylate of soda or salt water. Two cubic centimeters are sufficient for each injection. Higher doses may be dangerous. However the amount of injected fluid depends upon the resistance of the patient.

NOTICE.

Errors are frequently unavoidable and even under the closest scrutiny they sometimes creep in. We take pleasure in publishing the following correction in the title of Dr. Edward N. Liell's excellent article, which appeared in our June number, and herewith insert a communication from him

calling our attention to the mistake which we greatly regret:

Dr. E. C. Register,
Charlotte, N. C.

My Dear Doctor Register:—

I find in the June issue of your Journal that you have the title of my article as follows: "Intestinal Obstruction Resulting from *Circulation Construction* by an Elongated Appendix." I fail to find any sense or meaning to such a title, which no doubt is a typographical error.

The title, as given to you, was as follows: "Intestinal Obstruction Resulting from *Circular Constriction* by an Elongated Appendix."

Kindly give this letter space in your next issue, in order to correct the matter.

Faithfully yours,

EDWARD N. LIELL.

DR. McBRAYER'S ADDRESS.

Among the best papers read before the N. C. Medical Society at Winston-Salem was that of Dr. L. B. McBrayer of Asheville. No man in the society is more active and energetic, more abounding in enthusiasm or more capable, and there are none who can excel him on the floor as a writer and speaker. Taking for his theme: "The Importance of the Work of the General Practitioner," Dr. McBrayer treated this fruitful subject in most delightful manner. He unfailingly protested his belief in the abilities of North Carolina doctors to do great things and uttered the prophecy that the world will ere long be hearing of epoch making medical discoveries by men of the good old North State. The fact that the general practitioner is the man who comes nearest disease and its manifestations, who must include in his knowledge a large part of all that the specialists know, who acts as the safety-valve or check on the faddist—as the specialist is often apt to follow a rainbow, makes him, after all, the most important man in the whole medical profession.

Dr. McBrayer is himself one of the biggest young men in North Carolina, a scientific, big hearted, successful doctor, a brilliant writer and speaker, easy, fluent and magnetic on the floor, and a man who always has something to say worth hearing. No member of the society is a harder worker more enthusiastic or energetic than he is and those who had the privilege of hearing his paper have been most outspoken in praise and those who will read in the columns of this Journal will likewise find that we have not said more than ought to have been said. It will appear in our next issue

THE A. M. A. ON VIVISECTION.

At the recent meeting of the American Medical Association in Chicago, by unanimous vote of the House of Delegates upon a resolution introduced by Dr. P. M. Jones of San Francisco, and amended by Dr. Frank Billings, a recommendation was made to the Board of Trustees to create a commission, the sole duty of which shall be to watch and oppose the enactment of laws, intended to abolish vivisection. Dr. W. B. Cannon, chairman of the section of Pathology advocated a campaign of education against those who oppose the practice and who are accused of ignorance and untruthfulness. This is positive proof of the attitude of the greatest medical organization in the world against the narrowness and foolishness of the position occupied by the more rabid of the anti-vivisectionists. While no one has ever doubted that there are and have been instances in which the inhumanity of animal experimentation was apparent, yet when the vast knowledge which has been gained by no other means and could have been gained in no other way and the saving of human life and the prevention of human suffering are balanced against the sacrifice of the lives of lower animals, a sane, right minded man or woman could not hesitate one minute in deciding that vivisection is a necessary and not an unmitigated evil.

THE COMING MOSQUITO.

Every year about this season there begins to go up all over the land the lamentations caused by the tormenting presence of the pestiferous mosquito. Summer time is robbed of half its beauties and pleasures by its insistent attentions. Localities where the insects abound are rendered scarcely habitable during a portion of the year. And if the bite of the mosquito were always harmless, causing no other inconvenience than the pain and discomfort, that in itself would be sufficient reason for making some effort toward extermination of the pest. But when we remember that the mosquito problem has a very serious side for consideration by the medical man, and that there are several widely spread diseases which are propagated and disseminated, so far as we know, solely by the mosquito it becomes a matter grave enough to occupy the attention of doctors and health authorities everywhere.

The simple measures which will prevent the mosquito from annoying a community ought to be more widely known and we are glad to see the newspapers aiding in the education of the people in methods of extermination. A few ponds, puddles, marshes, tanks, water barrels, tin cans,

reservoirs, anything in which water can stand, form favorable breeding places and the people ought to know how simple a matter it is to empty an old tub or barrel, drain a puddle or pour a small quantity of kerosene oil on the surface of a body of standing water. It is astonishing to the majority of laymen to learn that the common wiggle-tail seen in stagnant water, is the larva of the mosquito. And they are still further surprised when told that oil will kill the larvæ and thus prevent the multiplication of the pests.

A few newspaper articles, a public address occasionally by some doctor or sanitarian in any city, town or community would be productive of immense good. To tell a man that the mosquito bite may be the cause of an illness, may produce in him a desire to laugh at you, at least he may doubt, and indifference be the reward for the effort. But show him how the little pest is hatched out of eggs laid by the female mosquito on the surface of water, how the wiggle-tail (larva) becomes in a very short time a full grown active mosquito, how easy it is to kill the larvæ and because of the torment the pest brings to them, people will listen and the lesson will make an impression.

A drop of kerosene oil will cover with a film fifteen square feet of water surface. The larvæ rise to the surface about once a minute to get air. They protrude their breathing tube above the surface, get a fresh supply of oxygen and descend again to the bottom. However, if this layer of oil be on the surface of the water, instead of air the breathing tube is filled with oil and the wiggle-tail is killed.

The oil should be sprayed on the water until a film can be seen. It is necessary to renew this every few days, at least once a week.

STATE BOARD OF EXAMINERS FOR 1908

The North Carolina State Board of Medical Examiners met in Winston-Salem, Monday, June 10th.

This completes the term of office of the Board whose services to the profession and to the State have, for the past six years, been entirely efficient and trustworthy. At the recent meeting of the Medical Society a new Board was elected, the names of the members of which are given elsewhere in these pages.

There were 132 applicants of which number 93 successfully passed the examination, and 10 were granted license by reciprocity. Twenty-nine failed to secure license.

Three applicants tied for the highest honors, the average of each being 93.1-7. They were: A. J. Terrell, of Old Fort; John Wilson

McConnell, of McConnelisville, S. C.; Thurman D. Kitchin, Scotland Neck. The next highest was Charles Solomon Lawrence, of Mount Airy, whose grade was 93 1-14.

The names of the successful applicants are as follows:

Baird, Jno. M., Mars Hill,
Baird, David E., Sagno,
Berry, John, Chapel Hill,
Bizzell, Thos. M., Goldsboro,
Bolles, Chas. P., Wilmington,
Chaney, Thomas M., Old Fort,
Covington, Platt W., Wadesboro,
Dees, Ralph E., Grantsboro,
Dodds, S. A., Salisbury,
Edwards, Slocumb R., Siler City,
Engel, William R., Tryon,
Frazier, H. T., Asheville,
Freeman, Robert H., Wake Forest,
Gardner, Garrett D., Ivey,
Garrenton, Cecil, Coin Jock,
Green, William W., Franklinton,
Harris, D. W., Fayetteville,
Hummicutt, William J., Asheville,
Irwin, Ham. C., Roanoke Rapids,
James, W. D., Laurinburg,
Jett, S. G., Reidsville,
Johnson, Wingate M., Raleigh,
Kerr, John D., Jr., Clinton,
Kitchin, Thurman D., Scotland Neck,
Lane, P. P., Wilson,
Lassiter, Ed. W., Rich Square,
Lawrence, Charles S., Mount Airy,
Ledbetter, P. B., Pisgah Forest,
McConnell, John W., McConnelisville,
S. C.

McIver, E. McN., Jonesboro,
McKee, John S., Raleigh,
McLean, Allen, Laurinburg,
McMurray, H. E., Sharon, S. C.
McPherson, R. G., Snow Camp.
Mann, J. E., Lake Landing,
Maynard, William N., Hillsboro,
Mock, F. L., Winston-Salem,
Monk, Geo. M., Raleigh,
Mudgett, W. C., Southern Pines,
Nichols, A. F., Roseboro,
Pate, Fred. J., Gibson,
Pepper, John C., Kernersville,
Perry, A. H., Raleigh,
Potts, Robert M., Fort Mill, S. C.
Powell, J. A., Harrellsville,
Reid, Jas. W., Lowell,
Ritch, John C., Belwood,
Robertson, William R., Burnsville,
Ross, George F., Philadelphia,
Royster, Thomas H., Oxford,
Rucher, A. A., Rutherfordton,
Scofield, E. J. S., Wapperrings Falls,
N. V.
Shoate, B. O., Sparta,
Shubert, L. H., Enfield,
Smith, John M., Louisburg,
Smith, P. T., Anna,

Smith, T. H., Liberty,
Spoon, A. O., Haw River,
Stafford, W. W., Elizabeth,
Taylor, James T., Raleigh,
Terrell, A. J., Old Fort,
Thornton, Miss Irene, Fayetteville,
Timberlake, Richard E., Youngsville,
Upchurch, R. T., Apex,
Wakefield, H. A., Charlotte,
Walters, Charles M., Burlington,
Ward, V. A., Wilson,
Watson, John B., Raleigh,
Webb, S. E., Browns Summit,
Wellborn, William R., Cold Ridge,
Whitney, L. M. D., Monroe,
Wilkinson, Charles E., Greensboro,
Wilson, W. P., Pine Hall,
Winslow, William T., Democrat,
Young, C. R., Angier.

COLORLED.

Avent, Frank, Newbern,
Carter, Ed. R., Winston,
Erwin, H. J., Morganton,
Fisher, Charles E., Raleigh,
Henry, John Robert, Beaufort,
Mitchell, L. L., Ahoskie,
Mitchener, William A., Raleigh,
Page, F. T., Durham,
Perry, M. N. L., Fayetteville,
Portis, E. S., Louisburg,
Ray, A. H., Raleigh,
Stryror, N. H., Jr., Newbern,
Thornton, F. J., Jr., Raleigh,
Torrence, William G., Asheville,
Winston, George L., Rocky Mount,
The following were granted license under the reciprocity clause:
Bissell, Helen W., Allegheny,
Brown, V. J., Ogden,
Burns, A. B., Statesville,
Carr, R. L., Wallace,
Harrison, E. H., Wake Forest,
Hooper, J. O., Fletcher,
McCotter, St. Elmore, Mayboro,
Sheppard, F. A., Liberty,
Smith, J. T., Salisbury,
Watkins, M. J., McIver.

BUBONIC PLAGUE IN SOUTH AMERICA

The Plague situation in certain South American countries has for some time past been vastly more serious than our country realizes, and the small concern apparently felt by the authorities over the near approach of one of the most widespread and deadly diseases the world has ever known, gives ground for expressions of surprise at our lethargy. For months past Bubonic Plague has existed in LaGuayra, perhaps much longer than that, and although the port has been reopened and reports indicate that the disease is subsiding, there are, nevertheless disturbing rumors of its prevalence

in this place still. As late as June 10, deaths are reported by the United States representative to have occurred from plague in both Caracas and LaGuayra. It is said that the city of Caracas, Venezuela, is widely contaminated and that great alarm is felt because no measures have been taken to fight the disease and no serum is on hand. Despite the fact that plague still rages, President Castro has issued a proclamation declaring all ports open and the epidemic ended. However, no ships have entered the port of LaGuayra in response to the President's decree. The government in addition has discontinued the issuance of health bulletins.

At LaGuayra the inhabitants are doing most heroic work with funds contributed by the business houses of the city. The burden of fighting the epidemic is borne by the merchants whose business is practically closed; the government, having officially declared the disease non-existent, does nothing.

At St. Thomas, Dutch West Indies, the disease has broken out, and on June 1st, there had been one fatal case and several suspects.

Plague is also reported to have appeared in a tribe of Indians in Panama near the Colombia border. This report is brought by Dr. T. N. Thomas, traveling inspector of the Marine Hospital Service, who has just returned from a trip through Central America.

Precautions against the entrance of cases are being taken at the Quarantine Station at New York, and the same rigid measures should be observed throughout every port of this country, particularly in the South.

DR WAY'S PRESIDENTIAL ADDRESS.

The presidential address delivered at the recent meeting of the State Medical Society by the now retiring president, Dr. J. Howell Way, and published in this issue of the Journal, deserves special attention from every doctor in North Carolina. He chose for its subject "Random Notes on the History, Aims, and Purposes of the Medical Society of the State of North Carolina," and in his characteristically charming manner sketched the development of the society from its origin in 1800 to the present magnificent organization as it exists today. The tribute he makes to the illustrious names that are indelibly written in the annals of the society—those who have been the leaders throughout the years gone by, and those who are still engaged in carrying forward the work with might and main could come only from a man whose heart is full of love for his profession and splendid zeal in its well-being. Indeed the com-

pleteness of Dr. Way's address cannot but impress upon one the fact that he has most carefully studied the history of the society and that he is thoroughly familiar with its progress throughout all the vicissitudes that have come with the years. For although the society has from the very earliest days proved a powerful factor in the medical progress of the State, there have nevertheless been times when its existence was possible only because of the most heroic efforts and sacrifices on the part of those great and good men of whom he makes mention.

However, we do not propose to attempt are some of the address. While no words of praise could in any measure do it full justice, we wish simply to call special attention to it, with the hope that no doctor in the old North State, who has not already heard it will fail to read it. Particularly will the young man, whose participation in medical society affairs in North Carolina yet lies before him, find inspiration in this address, and doubtless also to those whose years in practice are multiplying it will bring a fund of knowledge concerning the society which they did not possess before. There is no doubt but that in days to come the name of Howell Way will be spoken by those to whom a retrospective view grants a just and equitable measure of a man's worth with the same awed tones and hushed voice with which we today speak of Strudwick, Haywood, O'Hagan and Thomas.

The forceful manner of presentation of his subject, the pleasing style and delightful sketches in which the address abounds, and the logical order of arrangement, showing the to and from movements of sentiment and idea which have at various times characterized the dominating thought of the profession contribute toward making the paper what we consider one of the most splendid presidential addresses it has ever been the privilege of the Medical Society of this State to hear.

FLIES AND TYPHOID FEVER.

For a long time it has been believed that flies play no insignificant part in the dissemination and transmission of the infection of typhoid fever. While they have not been considered as important in this role as have been other agencies, such as water and milk, yet it has been known that it is perfectly possible for flies to carry germs on and in their bodies. However, no accurate data have been available, and no one has ever found it possible to say with certainty that any particular case of typhoid fever originated from another case through the intermediation of flies. Just recently

the Entomological Bureau of the United States Department of Agriculture, and the Public Health and Marine Hospital Service, began a series of observations and investigations, the object of which is to verify or disprove the theory of the transmission of typhoid fever by these insects. According to reports from Washington, where the investigations are being carried out, charts showing the varying prevalence of the disease throughout a year, and similar charts showing the fly population varying through the same period of time, will be made and compared.

To gain the requisite data concerning the flies, the two branches have sent out over the District of Columbia sheets of fly paper. After forty-eight hours the sheets are collected, and the dead flies counted, and the number, with the locality from which the flies come and the date, are marked down.

In practically all text books and writings on the subject of typhoid fever we find that the fly receives credit for being a carrier of the typhoid germ but no one knows the exact value he should be given in this role. It is to be hoped that the work undertaken at Washington by the departments will result in some positive conclusions.

Editorial News Items.

The city council of Lynchburg, Va., has refused the request of the authorities that the city give water to the amount of 100,000 gallons per day to the proposed epileptic colony which will be established near that city. The sentiment of the council seems to indicate that they will not go much out of their way to help on this institution since they deem it a menace to the place rather than a benefit to it.

Dr. A. B. Burns, formerly of Mayesville, Ga., recently of Atlanta, Ga., has located in Statesville, N. C., for the practice of his profession. Dr. Burns was recently connected with a hospital at Atlanta.

Dr. Harry Taylor Marshall, of Baltimore, has been elected to the chair of Pathology in the Medical Department of the University of Virginia, vice Dr. Chas. H. Bunting who will accept a chair at his alma mater, the University of Wisconsin.

Dr. J. E. Brooks reports that the new "State Sanatorium for the Care of Indigent Tuberculous Patients" will be completed by the 15th of August and will be ready to receive patients by that time. The Sanatorium, for which generous provision has been made by the General Assembly of

North Carolina, is located near Montrose, Cumberland county, on the Aberdeen & Rockfish railroad. It is situated on a high sandy ridge, overlooking Pinehurst and the surrounding country for twenty miles. The commission appointed by the legislature has purchased a tract containing 900 acres, 200 of which is excellent farming land.

On the evening of June 3rd, at the commencement exercises of the Erlanger Hospital Training School for Nurses, Chattanooga, Tenn., eleven young ladies graduated and received diplomas. They were as follows: Misses Esther Pierson, Lady Clara Henson, Ida H. Garber, Maggie Sue Owen, Wrothy Little, Minnie Davis, Frances Shouse, Eliza Whiteside, Mary J. Davis, and Lillie Cox.

Dr. Matas Honored

Dr. Rudolph Matas, of New Orleans, has been chosen a delegate to the International Medical Congress, to be held in Budapest next year.

Dr. Dunkel Goes Abroad.

Dr. Otto Dunkel, of Richmond, sailed from Montreal, Canada, on June 6th for London. He will visit Germany and France before returning to Richmond.

The Southside Medical Association of Virginia.

The twenty-first session of the Southside Virginia Medical Association was held in Emporia June 3rd. A large attendance of physicians from the Southside section of the State were present, as were many prominent medical men from Richmond, Petersburg, Suffolk and Norfolk. The program rendered was one of the best in the history of the society, and many able speakers were heard.

"Malaria" was the subject for general discussion, and was presented by Drs. O. C. Wright, of Jarratts, and H. B. Mahood, of Emporia. Dr. A. R. Shands, of Washington, who presented a paper on "Tuberculosis of the Knee Joint," was heartily received, and brought many new ideas concerning this grave affection. Dr. Hillsman, of Richmond, delivered an able address on "Intestinal Obstruction." Dr. Hart's paper on "Dysmenorrhea" made a fine impression. Dr. R. C. Bryan, also of Richmond, appeared before the body and delivered a most interesting address upon "The Hypertrophy of the Prostate Glands." Dr. Lucien Dofton, in his annual address, gave "Some Reasons for Race Suicide."

The night session was devoted to the subject of Hydrophobia, which was considered

in all of its various phases by Dr. A. G. Hoen, of Richmond. The speaker took especial pains to demonstrate the fact that rabies is a disease yet not profoundly considered in its true light. "Rabies cannot be cured," said the doctor, "but it can be prevented. This is an absolute fact." Dr. Hoen is now doing a considerable amount of original work in rabies. Specimens of brains of rabbits and charts in water colors were shown, and the talk of Dr. Hoen created a profound impression.

The meeting closed with a smoker at the Virginia Hotel. The next meeting will be held in Courtland the first Tuesday in September, 1909.

The regular meeting of the Richmond, Va., Academy of Medicine and Surgery was held in the Travelers' Protective Association building June 17. Drs. Edward McGuire, Ramon D. Garcin, J. Shelton Horsley and J. W. Henson read papers.

Chattahoochee Medical and Surgical Association.

The fourth semi-annual meeting of the Chattahoochee Valley Medical and Surgical Association was held in Auburn, Ga., Tuesday and Wednesday, July 14 and 15.

The officers of the Association were: President, Dr. J. H. McDuffie, Columbus, Ga.; first vice president, Dr. J. G. Palmer, Opelika, second vice president, Dr. James J. Winn, Clayton; secretary, Dr. W. J. Love, Opelika, and treasurer, Dr. A. J. Coley, Alexander City.

The address of welcome by Dr. C. C. Thach, president, was delivered.

Response in behalf of Chattahoochee Valley Medical and Surgical Association—By A. L. Harlan, M. D., Alexander City, Ala.

Among the papers that were presented was that of:

Typhoid Fever—By S. H. Newman, M. D., Dadeville, Ala.; leaders in discussion, Drs. Charles L. Williams, T. L. Harlan, O. M. Steadham, A. B. Bennett.

Diagnosis of Non-malignant Tumors of Female Breast—By J. B. Watkins, M. D., Opelika, Ala.; leaders in discussion, Drs. W. J. Love, H. S. Bruce, H. R. Slack, H. S. Munroe.

AFTERNOON SESSION.

Summer Diarrheas of Children—By A. L. Harlan, M. D., Alexander City, Ala.; leaders in discussion, Drs. H. T. Hamner, A. J. Coley, J. J. Winn, Hugh McCulloh.

A Study of the Last Epidemic of La Grippe, with special reference to Pulmonary, Abdominal and Nervous Complications—By A. S. Bennett, M. D., Opelika, Ala.; leaders in discussion, Drs. J. S. Horsley,

A. L. Harlan, S. H. Newman, E. H. Sims. Relapsing Fever—By W. A. Holloway, M. D., Kellyton, Ala.; leaders in discussion, Drs. W. E. Maxwell, O. S. Justice, N. B. Oean, Chilton Thornton.

Anæsthesia—By J. M. Anderson, M. D., Montgomery, Ala.; leaders in discussion, Drs. H. S. Bruce, H. R. Slack, J. S. Horsley.

Sanitation of Small Cities—By H. G. Perry, M. D., Greensboro, Ala.; leaders in discussion, Drs. C. A. Cary, A. J. Coley.

Home Sanitation in the County—By Dr. C. A. Cary, D. V. S., A. P. L., Auburn, Ala.; leaders in discussion, Drs. H. G. Perry, T. H. Street, Jas. J. Winn.

Some Thoughts on Psychological Therapeutics—By O. S. Justice, M. D., Central, Ala.; leaders in discussion, Drs. J. S. Horsley, J. G. Palmer, A. J. Coley, W. H. Hudson, W. E. Maxwell.

EVENING SESSION.

Oration—J. G. Palmer, M. D., Opelika, Ala.

SECOND DAY.

Malaria; Its Prophylaxis and Treatment—By Chilton Thornton, M. D., Montgomery, Ala.; leaders in discussion, Drs. Williams, J. S. Horsley, A. L. Harlan, A. H. Reade.

Diseases of the Gall Bladder and Appendages—By H. T. Hamner, M. D., Camp Hill, Ala.; leaders in discussion, Drs. Gaston Torrance, J. A. Goggans, W. L. Cooke, L. L. Hill.

Surgery of Gall Bladder and Ducts—By Gaston Torrance, M. D., Birmingham, Ala.; leaders in discussion, Drs. H. T. Hamner, L. L. Hill, W. L. Cooke, J. A. Goggans.

Pericardial Effusions and their Surgical Treatment—By L. L. Hill, M. D., Montgomery, Ala.; leaders in discussion, Drs. Gaston Torrance, J. A. Goggans, W. L. Cooke.

Abortion—By J. S. Horsley, M. D., West Point, Ga.; leaders in discussion, Drs. I. P. Motley, J. A. Goggans, J. G. Palmer, W. H. Moon.

Surgical Tuberculosis—By W. D. Gaines, M. D., Lafayette, Ala.; leaders in discussion, Drs. H. B. Disharoon, H. T. Hamner, H. R. Slack.

Bacillus Aerogenes Capsulatus Infection, with Report of Cases—By W. J. Love, M. D., Opelika, Ala.; leaders in discussion, Drs. C. A. Cary, A. J. Coley, L. L. Hill, H. R. Slack, J. P. Watkins.

AFTERNOON SESSION.

College Education, as is Necessary to the Study of Medicine—By Dr. Chas. C. Thach, A. P. L., Auburn, Ala.; leaders in discussion, Drs. A. L. Harlan, H. G. Perry.

Medical Expert Testimony from a Judicial Standpoint—By Hon. Lawrence H. Lee, Montgomery, Ala.; leaders in discussion, Dr. A. L. Harlan, Hon. R. B. Barnes, Dr. H. R. Slack, Dr. H. S. Persons.

Glioma of Retina—By H. S. Persons, M. D., Montgomery, Ala.; leaders in discussion, Drs. T. E. Mitchell, W. L. Bullard.

Some Therapeutic Observations—By Ouslow Reagan, M. D., Alexander City, Ala.; leaders in discussion, Drs. W. H. Moon, C. S. Yarbrough.

Exhibition and Demonstrations of New Instruments—By W. H. Hudson, M. D., Montgomery, Ala.; leaders in discussion, Drs. J. A. Goggans, W. L. Cooke.

Dr. Geo. Ben Johnston and Dr. A. Murat Willis, of Richmond, Va., have formed a partnership for the practice of Surgery and Gynecology. Their announcement was sent out July 1st, '08. Both these gentlemen are well and widely known and the combination of their splendid abilities makes a team than which there is no stronger in the whole South. Their offices are at 405 E. Grace St., Richmond.

Dr. and Mrs. E. M. Whaley, of Columbia, S. C., and their little daughter, Cecile, sailed from New York Saturday, July 4, on the Columbia, Anchor line, for Scotland. They expect to be abroad about two months, spending several weeks in London, where Dr. Whaley will study in various hospitals.

Florence Hospital Burns.

A serious fire was narrowly averted in the Florence Infirmary (Florence, S. C.) on the morning of June 19th by the quick response of the fire department and the citizens of the town. All the patients were removed without accident and the furniture of the building saved. At present a house adjoining the hospital is being used for the purpose of caring for patients. The loss is estimated at between \$3,000 and \$4,000.

The Florence Infirmary is one of the most prominent institutions of its kind in South Carolina, it being patronized by the entire Pee Dee country. It is operated by Dr. Frank H. McLeod and Dr. Dudley H. Smith, both of whom have made an enviable reputation for themselves by the successful manner in which they have handled all cases.

Cholera Among Soldiers in Manila.

Cholera has broken out among the troops at camp Gregg. Three scouts and one civilian have died from the disease, and the camp has been placed under quarantine regulations. Lieutenant Jones, of the

First cavalry, and Lieutenant Muldoon, of the Philippine scouts, have been stricken.

The situation with the cholera outbreak in the province of Pan Gasinan, on the island of Luzon, is very serious. Ninety-three cases occurred within twenty-four hours, sixty of which proved fatal.

Young Doctors of Virginia.

One of the largest classes of young physicians that ever appeared before the State Board of Medical Examiners for the right to practice medicine in Virginia has registered for the semi-annual examination which will begin in Richmond, June 24, and which will last for three days.

The members of the board are as follows:

For the State at large—Drs. R. M. Martin, president, Lynchburg; R. B. James, Danville; A. S. Priddy, Marion.

First District—Dr. W. B. Robinson, Tappahannock.

Second District—Dr. H. M. Nash, Norfolk.

Third District—Dr. H. U. Stephenson, Toano.

Fourth District—Dr. W. W. Winkinson, LaCrosse.

Fifth District—Dr. R. S. Martin (secretary), Stuart.

Sixth District—Dr. Samuel Lile, Lynchburg.

Seventh District—Dr. Robert C. Randolph, Boyce.

Eighth District—Dr. R. M. Slaughter, Theological Seminary.

Ninth District—Dr. E. T. Brady, Abingdon.

Tenth District—Dr. C. W. Rogers, Staunton.

Dr. Loeb of the University of California, and Dr. S. C. Minot of Boston, have been appointed corresponding members of the Physico-Medical Society of Vienna. The appointments were made on the hundredth anniversary of the foundation of the society, just celebrated in the city of Vienna.

We do not know who was the originator of the following, but a brother physician remarked to us recently, when the subject of bacteriology was mentioned, that in Ireland bacteria are called *microbes*, in Berlin they are *germs*, and in Paris they bear the term *parasites*.

New Medical College in Atlanta.

Atlanta is to have a new medical college. The name of it will be the Hospital Medical College. The incorporators are as follows: J. H. Powell, J. R. Duval, George A. Doss, I. N. Stowe, J. Q. Brantley, T.

H. Cox, W. D. Lingo, G. H. Hathcock, Charles H. Field, C. D. Elder, E. D. Lee and J. H. Goss.

It will be seen from the physicians who are to be connected with this new medical college that the institution will be one of high character.

Atlanta is known as the medical educational center of the southeast. It has several medical institutions. They have all prospered, and the field is an inviting one. There is plenty of room for this new Hospital Medical College, and it will serve as an institution for development of medical science in every phase. Just who all the members of the faculty will be has not yet been decided, and will not be until after the organization of the college. It is understood that the names of several leading physicians and surgeons of Atlanta, will appear in its catalog. The board of trustees will be selected from among the best business men in that city.

A suitable location will be selected. Handsome, commodious buildings will be erected and all modern appliances for the successful education of young men will be installed.

Medicinal Springs Near Carlsbad.

The Austrian government is about to assume charge of some medicinal springs about twenty miles from Carlsbad which have attracted attention lately. Not far from this point are the imperial uranium works, which have become famous during the last few years on account of the radium found in the uranium stone. There is also a government factory at St. Joachimstal where chemical colors are made from the uranium and shipped to all parts of the country. About two years ago the managers of the uranium mines made a report to the government authorities that the water of the mine was found to contain radium, and medical experts have since declared that these waters are of high medical value in certain diseases. The government has become convinced of the value of the water from this mine, and it is proposed to build the proper houses for making use of the water and also hotels for the accommodation of patients.

Medical Association at Cordele, Ga.

The Medical Association of the third Congressional District convened in Cordele, Ga., for the third annual session, Wednesday, June 17.

The officers of the association are: President, Dr. T. J. McArthur, Cordele; vice president, Dr. W. S. Brown, Fort Valley; secretary, Dr. R. H. Stovall, Vienna.

Committee on local arrangements: Dr.

W. E. Edwards, Dr. Byron Daniels and Dr. S. E. Williams, all residents of Cordele.

Following was the official and interesting program:

MORNING SESSION.

Prayer—Rev. Frank W. Cramer.

Address of Welcome in Behalf of the City of Cordele—Mayor R. L. Wilson.

Address of Welcome in Behalf of the Local Profession—Dr. H. B. Roberts.

Response to Address of Welcome—Dr. O. G. Singleton, Fort Valley.

Report of committee on arrangements.

Reading of minutes and general business.

"The Needs of a State Institution for the Treatment of Tuberculosis"—Dr. H. A. Monley, Vienna.

"Public Hygiene and Sanitation"—Dr. M. S. Brown, Fort Valley.

"Anesthetics"—Dr. D. B. Mayes, Americus.

"Neurasthenia"—Dr. V. O. Harvard, Arabia.

AFTERNOON SESSION.

"Hook Worm"—Dr. M. R. Smith, Cordele.

"Arteriosclerosis"—Dr. W. E. Edwards, Cordele.

"Summer Diarrhoea"—Dr. G. C. McKenzie, Arabia.

"Enterocolitis"—Dr. C. H. Richardson, Montezuma.

"Should Every Case of Appendicitis be Operated On?"—Dr. R. E. Cato, Americus.

"Treatment of Contused Wounds of the Hands and Feet"—Dr. D. B. Ware, Fitzgerald.

"Bright's Disease"—Dr. A. G. Fort, Lumpkin.

"Typhoid Fever"—Dr. E. J. Dorminy, Fitzgerald.

"Improper Dieting in Infancy and the Disturbances of Nutrition Resulting Therefrom"—Dr. Byron Daniel, Cordele.

The Tri-Railway Surgeons' Association.

Surgeons of the New Orleans and North-eastern, Alabama and Vicksburg, and Vicksburg, Shreveport and Pacific railroads, have organized the Tri-Railway Surgeons' Association. The purpose of the organization is the promotion of professional brotherhood and the mutual improvement of members by the discussion of questions pertaining to railway surgery. Eighteen of the twenty-four members attended the meeting. A constitution and by-laws were adopted and the following officers elected for the year: C. W. Bufkin, president, Hattiesburg, Miss.; J. J. Haralson, first vice president, Forest, Miss.; H. F. Wilkins, second vice president, Rayville, La.;

J. D. Martin, secretary, New Orleans; R. W. Thompson, treasurer, Lumberton, Miss.

A banquet, at which addresses were made by members and guests, was held at the Old Hickory at night, June 12, to mark the formation of the association. The guests were: D. D. Curran, president New Orleans and Northeastern Railroad Company; Larz A. Jones, vice president; Harry H. Hall, general counsel; S. E. Flanagan, superintendent New Orleans and Northeastern Railroad; H. B. Hearn, superintendent Vicksburg, Shreveport and Pacific Railway Company; Walter V. Harvey, superintendent Alabama and Vicksburg Railroad; R. B. Fowler, general manager Terminal Company.

There were also present E. Denegre Martin, M. D., chief surgeon; surgeons, Drs. T. M. Alford, C. W. Bufkin, J. T. B. Berry, I. W. Cooper, Oscar Dowling, A. A. Forsythe, L. C. George, G. S. Hunter, J. F. Hunter, J. J. Haralson, O. A. Harrison, G. L. Harbour, H. G. McCormick, Jos. D. Martin, F. R. Nimocks, P. R. Outlaw, L. L. Polk, Thos. Ragan, H. L. Smith, R. W. Thompson, S. L. White, J. C. Willis, H. F. Wilkins, H. B. Wilson, G. W. Luster.

Hospital for University of Nashville, Tennessee.

A hospital built after the most approved plans is to be erected by the University of Nashville upon the site of the old medical school in South Nashville, the lot containing a block of ground and bounded by Peabody and Franklin streets and Second and Third avenues. The building and equipment will cost \$75,000. The site is already the property of the university and a committee is in charge of the improvement and will at once address itself to the matter of plans.

Surgeons of Confederacy.

The Association of the Medical Officers of the Army and Navy of the Confederacy met in its eleventh annual convention at Birmingham, Ala., June 9th. Only about fifty members were in attendance.

The address of welcome on behalf of the Jefferson County Medical Society was delivered by Dr. Lewis Whaley, president, and Mr. Booker welcomed the veteran surgeons on behalf of the Sons of Veterans. Dr. D. G. Roberts made the response to the address.

The address of President Samuel E. Lewis, of Washington, followed.

At the conclusion of his speech a committee, consisting of Dr. J. B. Cowan, of Tallahoma, Tenn., Dr. J. L. Dismukes and Dr. J. C. Abernathy, of Birmingham, was

appointed to consider the recommendations of the president.

Among the papers read were:

"How a Virginia girl won the title of Captain, was commissioned as such, and placed in charge of the best hospital in Richmond," by William Berrien Burroughs, M. D., Brunswick, Ga.

"Medical Expedients During the War Between the States," by J. C. Edwards, M. D., Abbeville, La.

"Antiseptics and the Army Surgeon," by J. C. Abernathy, M. D. Birmingham, Ala.

"Retreating on Appomattox—the Experiences and Recollections of a Surgeon," by A. A. Lyon, M. D., Nashville, Tenn.

The officers of the association are: President, Samuel E. Lewis, M. D., Washington, D. C.; secretary and treasurer, A. A. Lyon, M. D., Nashville, Tenn.; vice president, E. A. Fleuellan, M. D., Georgia; vice president, Blair Burwell, M. D., Virginia; vice president, I. G. Wilson, M. D., Alabama; vice president, G. E. Phillips, M. D., Mississippi; J. C. Abernathy, M. D., Birmingham, Ala., chairman committee of arrangements.

Sanitarium for Gainesville, Ga.

At a meeting of the citizens of Gainesville, which was held recently to consider the subject of the organization of a stock company under charter from the State to organize and maintain a sanitarium in the city of Gainesville, there was every indication of enthusiasm and success in the venture, and an association was organized with a capital stock of \$10,000, half of which has already been subscribed, a number of the leading business men and citizens of the city having interested themselves by subscribing for shares.

At this meeting officers of the association, which will be known as the Gainesville Haven Sanitarium Association, were elected as follows:

W. R. Thomas, president; Dr. C. F. Marsh, vice president; B. F. Hampton, secretary and treasurer; H. E. Taylor, I. E. Webster, Phillip Miller and A. M. Cushman, board of directors.

New Hospital for Atlanta, Ga.

The Tabernacle Infirmary, the new hospital, located at 92 Luckie street, Atlanta, was opened July 2nd with appropriate exercises.

Governor Hoke Smith made the principal address. He was followed by the following who made short talks:

Asa G. Candler spoke for the chamber of commerce; H. A. Etheridge, for the board of infirmary trustees; W. S. Witham, for

the city of Atlanta; Dr. W. W. Landrum, for the Baptists of the city; Rev. A. R. Holderby, for the Presbyterian hospital; Rev. Frank Eakes, for the Wesley Memorial hospital; Dr. L. G. Hardman, for the Georgia State Medical Society; Rev. J. J. Bennett, for the Baptist State Mission Board; Dr. E. C. Davis, for the Tabernacle infirmary medical and surgical staff; F. L. Seely, for the press.

University College of Medicine, Richmond, Va.

The board of trustees of the medical department of the University Medical College has divided the chair of Dr. Paulus A. Irving, who has been professor of pediatrics. Dr. McGuire Newton has been elected to the chair of theoretical pediatrics and Dr. Irving will retain the professorship of clinical pediatrics.

Dr. A. G. Brown, Jr., has been elected professor of the theory of practice of medicine, becoming full professor of the chair in which he has been the acting instructor for the past session.

Dr. J. Garnett Nelson was elected to the chair of practice of medicine and physical diagnosis, a chair in which he has been acting professor for the past session.

Needed Amendments to the Medical Laws of Georgia.

There was an interesting session of the State Board of Medical Examiners in the parlors of the Brown house in Macon, Ga., on June 10, at which time plans were made for presenting to the next session of the legislature certain needed amendments to the medical laws, looking to the perfection of a higher standard for the medical profession in the State. The board was in session one day, Dr. J. B. S. Holmes, of Valdosta, chairman, presiding. The work of the board was practically completed, but the proposed amendments will yet have to be put into definite shape before the matter will be ready for the session of the legislature.

Besides Dr. Holmes, the other members present were Dr. Fred D. Patterson, of Cuthbert, and Dr. E. R. Anthony, of Griffin, secretary of the board. Dr. George H. Noble, dean of the Atlanta School of Medicine, and Dr. W. S. Elkin, dean of the Atlanta College of Physicians and Surgeons, were also present.

Warfare Against Consumption.

Methods of warfare against consumption were discussed and arrangements made for a more extensive campaign against the disease at the fourth annual meeting of the National Association for the Study and

Prevention of Tuberculosis, which convened in Chicago, June 5. Dr. Frank G. Billings, the president of the organization, read his official report, and Dr. Livingston Farrand, of New York, the executive secretary, reported on the progress made during the last year.

Medical Act in South Carolina.

The medical practice act of South Carolina has been amended, as follows: The State Board of Medical Examiners is authorized to revoke licenses for just cause; the "five-year clause," which exempted physicians of five years' standing from examination has been eliminated; osteopaths may take the examination, but are excused the surgery and materia medica, therapeutics, and practice papers.

South Carolina recognizes reciprocity with the following States: Kansas, Maine, Maryland, Michigan, Minnesota, Missouri, Nevada, Texas, Utah, Virginia, West Virginia, Wisconsin, and Wyoming.

Patient Sues Physician.

Suit has been instituted in Lynchburg, Va., by D. M. Firey, of Roanoke, against Drs. Terrell and Lile. Damages amounting to \$10,000 are asked because a wound treated by the physicians did not heal.

Medical Marriage Law.

At a meeting of the Fulton County, Ala., Medical Society held at the Carnegie Library on July 2nd the pending measure by Mr. Dean, of Floyd, Ala., to regulate the issuance of marriage licenses was heartily endorsed in resolutions by this society.

Mr. Dean appeared before the society and spoke in advocacy of his measure. It requires, when passed, all applicants for marriage licenses shall present certificates from reputable physicians as to the physical condition of the applicants before a license can be granted.

The bill is now before the legislature in Alabama.

Southwest Louisiana Physicians Organize at New Iberia.

Acting in accordance with the call of Drs. I. T. Rand, H. A. King, J. W. Sanders and other prominent physicians of that section, there gathered at New Iberia, July 10, physicians from all over Southwest Louisiana for the purpose of forming a clinical society for the common betterment and enlightenment of its members. They assembled at the Circuit Court building, where permanent organization was formed.

Among the charter members are: H. A. King, I. T. Rand, J. P. Harrison, Guy A.

Shaw, George P. Minville, M. B. Tarleton, W. F. Carstens, T. J. Williams, W. C. Jackson, J. T. Abshire, A. J. Commeaux, Douglas Duperier, J. H. Levin, Allan Eustis, E. E. Guilbeau, J. A. Villien, L. O. Clarke, R. D. Voorhies, T. Darby, J. W. Sanders and A. Landry.

The name of "The Attakapas Clinical Society" was chosen, and the domicile to be wherever the secretary resides, and the territory of eligibles all the original parishes of the Attakapas, which are: Assumption, Acadis, Calcasieu, Ascension, Iberia, Iberville, Vermilion, Lafayette, St. Martin, St. Mary, Lafourche, St. Landry and Terrebonne. The American Medical Association code of ethics was adopted as those controlling the association. Meetings are to be quarterly, March, June, September and December.

Dr. King was named president and Dr. Williams secretary and treasurer. R. D. Voorhies, of Lafayette, and Dr. J. T. Rousset, of St. Mary, were chosen first and second vice presidents, respectively.

Committee on scientific papers: Drs. Allan Eustis, J. P. Harrison and L. O. Clarke. Committee on publication: J. W. Sanders and T. J. Abshire. Judiciary committee: Drs. Geo. P. Mienville, Eric Guilbeau, and Dr. Martin, of Lake Charles.

The Southern Medical Association—Next Annual Session, Atlanta, Ga., Nov. 10, 11 and 12, 1908.

President, B. L. Wyman, Birmingham, Ala.; vice presidents, W. P. McAdory, Birmingham, Ala.; H. M. Folkes, Biloxi, Miss.; Frank Watson, New Orleans, La.; G. R. Holden, Jacksonville, Fla.; Raymond Wallace, Chattanooga, Tenn.; A. L. Fowler, Atlanta, Ga.; Secretary-treasurer, Oscar Dowling, Shreveport, La.; Councillors, D. F. Talley, Birmingham, Ala.; Michael Hoke, Atlanta, Ga.; John M. McDermid, DeLand, Fla.; W. W. Crawford, Hattiesburg, Miss.; W. W. Butterworth, New Orleans, La.; George C. Savage, Nashville, Tenn.

OFFICERS OF SECTIONS.

Section on Medicine—Chairman, Seale Harris, Mobile, Ala.; Secretary, H. E. Mitchell, Birmingham, Ala.

Section on Surgery—Chairman, W. F. Westmoreland, Atlanta, Ga.; Secretary, J. L. Crook, Jackson, Tenn.

Section on Ophthalmology—Chairman, J. F. Herron, Jackson, Tenn.; Secretary, A. B. Harris, Birmingham, Ala.

Tuberculosis Campaign.

At a meeting of the Etowah County Medical Society, held in Gadsden, Alabama, June 3rd, a resolution was passed asking

that the county commissioners provide funds for the purpose of issuing circulars and carrying on the work of the "Tuberculosis campaign" which was recently inaugurated by the society in connection with the State-wide campaign of education on the prevention of that disease. Dr. Stewart, of Attalla; Dr. Acton, of Alabama City, and Mr. Murphree, of Gadsden, were delegated by the society to address the negroes on the subject and instruct them upon the preventive measures. At the next meeting Dr. M. P. Hughes and Dr. Faucett will read interesting papers on the subject of tuberculosis.

New Hospital Organized.

The New Presbyterian Hospital which will shortly be opened in New Orleans will be operated by an association of men, the membership of which will be composed of men in good standing in the Presbyterian Churches of the city. Its object is to provide medical and surgical aid for the sick and disabled of every creed. Although the administration will be entirely Presbyterian, it will draw no lines so far as the medical attendants are concerned since all denominations will be represented among the corps of physicians. Among those who will serve on its staff are: Dr. John F. Oechsner, Dr. E. L. McGehee, Dr. D. L. Watson, Dr. Frank H. Watson and Dr. Jeff. Miller.

King's Mountain Hospital.

The Sycamore Shoals chapter, of Bristol, Tenn., is enthusiastically working to establish a hospital for that city, to be known as King's Mountain hospital.

Dr. Philip Easley.

Dr. Philip S. Easley, from Black Walnut, Va., has located in Thomasville, N. C., for the practice of medicine and surgery. He is a graduate of Davidson College and the North Carolina Medical College, Charlotte, and Jefferson Medical College, Philadelphia.

Dr. Hood to Locate at Pineville, N. C.

Dr. J. S. Hood will, at an early date, locate at Pineville for the practice of medicine. Dr. Hood is a young man of a most promising future. He graduated last year from the Jefferson Medical College, Philadelphia, Pa. Since then he has been practicing near Hendersonville, N. C.

Col. William C. Gorgas, chief sanitary officer of the Canal Zone, was chosen President-elect of the American Medical Association at its recent meeting in Chicago.

Other officers were elected as follows: First Vice-President, Dr. Thomas Jefferson

Murray, Butte, Montana; Second Vice-President, Dr. John A. Hatchett, Oklahoma; Third Vice-President, Dr. Thomas A. Woodruff, Chicago; Fourth Vice-President, Dr. E. M. Hall, Kentucky; General Secretary, Dr. Geo. H. Simmons, re-elected and Treasurer Dr. Frank Billings, re-elected, both of Chicago.

The graduating class of the Department of Medicine of the George Washington University, numbering 45 who received the degree of Doctor of Medicine at the commencement exercises, June 3, 1908, has announced to the University authorities the establishment by the class of a research fellowship. This fellowship will be known as the "Class of '08 Fellowship," and will have an annual fund of not less than \$300.

Tulane Doctors' Reunion.

Twenty-seven graduates of the medical college of Tulane University, New Orleans, held a re-union in Chicago, June 3.

Prof. Rudolph Matas of New Orleans was toastmaster. Among those who spoke were: Prof. Edmond Souchoy of New Orleans, Dr. D. M. Griffith of the Kentucky Medical Society, Dr. W. A. Evans, health commissioner of Chicago, and Prof. M. D. Feingold.

Quaint Dr. Colles.

Dr. Colles, an eminent surgeon of Dublin, who died in 1843, was remarkable for his plain dealing with himself. In his fee book he had many such candid entries as the following:

"For giving ineffectual advice for deafness, 1 guinea."

"For attempting to draw out the stump of a tooth, 1 guinea."

"For telling him that he was no more ill than I was, 1 guinea."

"For nothing that I know of, except that he probably thought that he did not pay me enough last time, 1 guinea."

Church Hill Medical Society of Va.

The regular meeting of the Church Hill Medical Society was held at the residence of Dr. W. S. Beazley, on June 11. There were several important matters discussed.

Sanitarium for Gaffney, S. C.

Drs. J. N. Nesbitt, J. T. Darwin and J. L. Sherard, have opened books of subscription to the Limestone Sanitarium Company. These gentlemen have purchased from Mr. C. G. Parish a beautiful lot on Robertson street whereon they purpose to erect a modern building to be used as a hospital. The promoters are men of ample means and the

project will no doubt be carried forward to completion.

Saluda Doctors Meet.

The Saluda County Medical Association met in Ridge Spring, S. C., June 8, in annual session, with a full attendance of members and invited guests.

A delightful picnic dinner was served by the ladies at the famous spring.

Dr. Frontis, the president, called upon an honored guest, Dr. W. H. Timmerman of Batesburg, who gave interesting and humorous reminiscences of the leading physicians of this section 50 years ago.

Dr. Rushton of Johnston was next called upon and discussed the aims and advantages of the association.

Dr. F. A. Asbill was the last after-dinner speaker, and in a very graceful way expressed appreciation of the preceding addresses.

Physicians are Fined.

Dr. L. E. Poree and Dr. E. A. Rappinier, both of Richmond, Va., were each fined \$50 for failing to report cases of contagious diseases to the Board of Health. The doctors were tried in the Second Recorder's Court, and both gave notice that they would appeal the cases to a higher court.

Colored Doctors Meet.

The North Carolina Medical, Pharmaceutical and Dental Association, composed of the colored doctors, pharmacists, and dentists, closed its nineteenth annual session at Winston-Salem, June 18. There are 81 colored doctors in North Carolina, 34 pharmacists and 4 dentists. The following-named officers were elected for the next year: President, Dr. J. W. Jones, Winston-Salem; first vice-president, Dr. C. O. Lee, Winston-Salem; second vice-president, Dr. W. G. Torrence, of Asheville; secretary and treasurer, Dr. A. A. Wyche, Charlotte; corresponding secretary, Dr. W. A. Pethel, Charlotte; executive committee, Drs. J. M. Walker, of Asheville; Dr. J. W. Fuller, of Salisbury, and Dr. J. R. Henry, of Winston-Salem.

Out of 21 applicants for license, the board passed 16.

Large Gift to Hopkins.

Professor William H. Welsh, of the Johns Hopkins University, on the 14th of June, announced that Henry Phipps, of Pittsburg and New York, had arranged for a large gift to the Johns Hopkins Hospital and University for the founding of a psychiatric clinic on the lines of well-known similar institutions in Europe. The funds provide for the construction of a four-story hospital

building on the Hopkins Hospital grounds to accommodate sixty patients together with rooms for private patients, modern apparatus for use in the treatment of patients and laboratories for the scientific investigation of mental abnormalities, hypathological, chemical and psychological methods.

In addition, Mr. Phipps will provide for the maintenance of a medical and nursing staff of a higher order, including salaries for a professor of psychiatry and assistants and other expenses for a period of ten years.

The total amount of the gift is withheld, in accordance with the wishes of Mr. Phipps, but it is understood that it will considerably exceed half a million dollars.

Dr. D. M. Michaux of Dillon, S. C.

During a heavy thunderstorm at Dillon, S. C. on June 12, Dr. D. M. Michaux was struck by lightning and for several hours was regarded as having been seriously injured.

While he is still weak, we are glad to state that he has almost recovered.

New Hospital for Lynchburg, Va.

The owners of St. Andrew's Home, one of the best known private hospitals in Lynchburg, is to have a new building, plans for which are now being prepared. The structure will have a frontage of forty feet running back ninety feet with four floors above the basement. The appointments will be modern in every particular, and will cost about \$20,000.

Marriages.

Dr. John McCampbell.

The marriage of Dr. John McCampbell, Superintendent of the State Hospital for the Insane at Morganton, N. C., to Miss Maggie Thompson, who for some time has been head nurse at the same institution, was solemnized Tuesday evening, June 23, '08, at the home of the bride's sister, Mrs. R. S. Runion, of Asheville, N. C. This news came as a considerable surprise to the many friends of Dr. McCampbell, who did not let his intentions be known to those most intimate with him. The groom is one of the best known young medical men in this State. As successor to the lamented Dr. P. L. Murphy, he has risen to a very prominent and responsible position, and he worthily wears the mantle which most deservedly fell upon him by unanimous choice of the trustees. Having been connected for a number of years with the medical staff of the hospital of which he is now head, he has steadily risen from the lowest office on

its staff to the very highest. Dr. McCampbell is a man of the most unswerving integrity and honesty. As a skillful physician and alienist he has no superior in the State. A dignified, upright whole-hearted gentleman is what he is to all who know him.

It goes without saying that the bride is all a bride ought to be. We make no pretense to being qualified to speak of her whom the good doctor has chosen to brighten his home, to cheer and help and strengthen him in his work. And all that and more the Journal wishes for them the while it offers its congratulations and kindest felicitations.

Dr. Otis Lee Watkins.

Dr. Otis Lee Watkins and Miss Lula Mary Hawkins, of Marysville, Campbell county, Va., were married at the home of the Bride's parents, Mr. and Mrs. Willie C. Hawkins, on June 24th.

Dr. Thomas Garrett Pretlow.

Dr. Thomas Garrett Pretlow, of Richmond, Va., was married to Miss Frances Llewellyn Ribble, at the home of the bride's father, Dr. W. H. Ribble, Sr., in Wytheville, Va., on June 25th. Dr. Pretlow is a graduate of the University College of Medicine, Richmond, Va., class 1903, and is a popular young physician of his city.

Dr. Lemuel J. Crowe.

Dr. Lemuel J. Crowe was married on June 30th, to Miss Susie Childs Barrow, of Athens, Ga. Dr. Crowe is a native of Atlanta, Ga. He is a son of Dr. W. A. Crowe, a well known physician of that city. He is a graduate of the University of Georgia, spent a year at the University of Freiburg, Germany, and graduated from the medical department of the Johns Hopkins University, Baltimore, Md. He has done some original research work on diseases of the gall-bladder, which has brought him into national prominence with the medical profession. Dr. Crowe has recently been elected assistant surgeon on the faculty of Johns Hopkins for next year, and after October 1st he and Mrs. Crowe will go to Baltimore to make their home, when he will assume the responsibilities of his duties in that institution.

Dr. Herbert C. Cole.

Dr. Herbert Claiborne Cole and Miss Estelle Hynson were married in New Orleans, La., on the 24th of June. Dr. Cole is a graduate of the medical department of the Tulane University of Louisiana, class 1891. He was formerly of Monroe, La., but has recently made New Orleans his home.

Dr. John Howell.

Dr. John Howell, of Canton, Mississippi, was married to Miss Katherine Coleman on June 18th. Dr. Howell is a graduate of the medical department of the Vanderbilt University, of Nashville, Tenn., class 1895.

Dr. C. H. Pinson.

Dr. C. H. Pinson and Miss Mabel Smith were married on the 24th of June, in the Presbyterian church, at 7:30 o'clock, in Livingston, Ala.

Dr. Thomas M. McCoy.

The marriage of Dr. Thomas Marshall McCoy of Mount Holly, N. C., to Miss Daisy Shipp of Gulfport, Miss., was celebrated July 23rd, in the First Baptist church at Gulfport.

Dr. McCoy graduated from the North Carolina Medical College, class 1905, and has proved himself a skillful and successful doctor. He is a native of Mecklenburg county. An elaborate reception was tendered the couple after the ceremony, after which they left for Dr. McCoy's home in North Carolina.

Dr. Kenneth Bradford.

In Talladega, Ala., June 18, Miss Lillie Margaret Camp and Dr. Kenneth Bradford were married. Dr. Bradford is now a resident of Birmingham, Ala.

Dr. James C. Hill.

Dr. James C. Hill, of Abbeville, S. C., was married to Miss Sara Ellen Henry, also of Abbeville, on June 24th. Dr. Hill is a graduate of the University of Maryland School of Medicine, Baltimore, Md., class 1906.

Dr. J. Kelly Stalvey.

Dr. J. Kelly Stalvey, of Bucksport, S. C., was married to Miss Bessie Rollinson Conway on June 17th, in the Kingston Presbyterian church, Conway, S. C. Dr. Stalvey is a graduate of the Medical College of the State of South Carolina, Charleston, S. C., class 1907.

Dr. John Abner Penton.

Dr. John Abner Penton and Miss Eola Bakers, both of Goodwater, Ala., were married at the home of the bride on June 17th. They will make their home in Goodwater. Dr. Penton is a graduate of the College of Physicians and Surgeons, Baltimore, class 1900.

Dr. Richard Eugene Windley.

Dr. Richard Eugene Windley was married to Miss Mattie Pearle Mann, June 17, 1908, at Fairfield, N. C. Dr. Windley is a

graduate of the University of Maryland, and is a bright young man.

Dr. Walter E. Baker.

Dr. Walter E. Baker and Miss Katherine Lawson of Asheville, N. C., were married June the 5th, at the home of the bride's brother. Dr. Baker was graduated from the medical department of the University of Chattanooga this spring.

Dr. Eustace Sloop.

Dr. Eustace Sloop of Plum Tree, Mitchell county, N. C., was married July 2nd, to Miss Mary Martin, M. D., of Davidson, N. C. The wedding took place at Blowing Rock, at the summer cottage of the bride's brother, Dr. W. J. Martin. Dr. Sloop is a bright and successful young physician who is doing a magnificent work in the mountains. He is a graduate of Davidson College and of the North Carolina Medical College, class 1905. The bride, also an M. D., is a beautiful and attractive woman who is widely known for her splendid qualities and mind and heart. A graduate of the Woman's Medical College of Philadelphia, she was one of the three who carried away the honors before the North Carolina State Board of Examiners in 1906.

Dr. A. P. Traywick.

Dr. A. Paul Traywick of Cameron, S. C., was married to Miss Janie May Crute, on on June 24th, at "Melrose," the beautiful home of Mrs. William E. Garrett, of Buckingham county, Va. Dr. Traywick is a graduate of the College of Physicians and Surgeons, Baltimore, Md., class 1902.

Deaths.

Dr. Walter Brown.

Dr. Walter Brown, of Donner, La., died suddenly on the 20th, at his home. His death was due to heart failure.

Dr. Wm. S. Mixon.

Dr. Wm. S. Mixon, formerly of Dallas county, Ala., died at Bastrop, La., on June 26th. His remains were brought to his old home for interment.

Dr. J. H. Reynolds of Asheville.

Dr. J. H. Reynolds, one of the most popular young physicians of Asheville, died June 5th, at 11:50 o'clock at the Mission Hospital after an illness of less than three days from the after effects of an operation for appendicitis which was performed several months ago. Dr. Reynolds had apparently entirely recovered from the operation for appendicitis and was looking after his

practice feeling better than he had for years when he was suddenly attacked and rapidly grew worse until his death. Dr. Reynolds was 29 years of age, graduating in 1903 from the Louisville Medical College. He was a native of Asheville and a son of Mr. and Mrs. James Reynolds. Surviving are a widow and two sisters, Miss Lillian Reynolds and Miss Bessie Reynolds. The news of Dr. Reynolds' death came as a great shock to his many friends and acquaintances here and throughout North Carolina.

Dr. W. H. Nardin.

Dr. Waller Humm Nardin, Sr., of Anderson, S. C., died May 30th. There was no one more closely identified with the progress of his city and community than Dr. Nardin, and the loss sustained by the people by his death will never be remedied.

Dr. Y. R. Holloway.

Dr. Y. R. Holloway, of Birmingham, Ala., dropped dead in his automobile. Heart disease was the cause of death. The man's foot slipped off a pedal of the automobile when he received the attack, which caused the machine to back up against a fence alongside of the road. Passers-by found the dead man in the car. Dr. Holloway was about sixty years of age.

Dr. J. B. Smith.

After a honeymoon that lasted only one week, Dr. J. B. Smith, who married Miss Eliza Carswell, of Hephzibah, Ga., was killed by falling into a well while working on the curbing, in the course of making a number of repairs upon his premises.

Dr. G. M. Walker.

Dr. G. M. Walker, aged 60 years, one of the oldest physicians in Hamilton county, Tenn., died June 23, at his home in Soddy. He had been ill about two weeks. For several years Dr. Walker has served as physician for the New Soddy Coal Company.

Dr. W. B. Boyd.

Dr. W. B. Boyd, for a long time a prominent physician at Bumpass, Va., and recently engaged in the drug business at Mineral, Va., died suddenly June 15 of convulsions, aged seventy years.

He was a native of Abbeville, S. C., and settled in Virginia after the war. He leaves a widow whose maiden name was Parrish.

Dr. J. D. Spicer.

Dr. John D. Spicer, one of Goldsboro's most eminent physicians, died at his home June 8th. For many years he stood at the

head of his profession and kept up his practice until the first of June when he took to his bed. Dr. Spicer was a native of Onslow county. He was a graduate of the State University and an active member of its alumni association. He was graduated with the degree of M. D. from Jefferson Medical College in 1859, and was a member of his county and State Medical Associations. He is survived by a devoted wife, and eight children, four sons and four daughters. The funeral was held June 9th. 1908.

Review of Southern Medical Literature

Gaillard's Southern Medicine, May, 1908.

Concerning the Complications and Sequelae of Influenza.—Dr. T. A. Parker says that bronchopneumonia, lobar pneumonia, bronchiectasis and pleurisy of all forms are well known complications; chronic bronchial and pulmonary influenzal infection is less frequently met with, though it does occur and not rarely results fatally after the lapse of a few years; in cases where autopsy shows this bacillus only and not the more frequent tubercle bacillus as a terminal complication. The more acute cardiac involvements, especially endocarditis, are well known. Gastrointestinal complications such as peritonitis, appendicitis, and ulceration of the bowel have been reported as due to Feiffer's bacillus. Many an unsuspected nephritis has remained quiescent until the grip bacillus or its toxins proved too severe a strain for the impaired kidneys and caused a rapid decline. On the other hand the phthisical individual has scarcely a greater foe. Advanced cases rapidly grow worse; and a great number of all tubercular patients can trace their first symptoms to an attack of grip that "hung on." In this connection it is interesting to note that the Munich garrison discharged 67 men on account of tuberculosis during the twelve months preceding September, 1889; and 132, or twice as many, during the succeeding six months. The Paris records show 349 deaths from tuberculosis between December 22nd, 1888, and January 14th, 1889; while during the same period for the following year 886 deaths occurred from the same cause, but an epidemic of grip had swept the city just previously. It is, then, in its complications and sequelae that influenza commands our respect. And knowing of these eventualities, we should impart to the laity in general, endeavoring to impress upon them the fact that they are dealing with something far worse than a bad cold. No matter how mild the attack

may be. But we should ourselves endeavor to actually distinguish true influenzal infection from that of a micrococcus catarrhalis and other similar conditions in order to impress the difference on the laity. Broadbent advocates two grains of quinine every morning during an epidemic, as a prophylactic is worth heeding; and the protection, as far as possible, of the physical and feeble should certainly receive our attention. Finally, an interview with the idea of searching out any complications or sequelæ which may have developed since active treatment has ceased should be insisted upon at suitable intervals after convalescence has been established.

The Mobile Medical and Surgical Journal, May, 1907.

Soil Pollution and Hook-worm Disease in the South.—Dr. C. W. Stiles after giving a brief outline of his investigations for the past six years offers the following plan of campaign for the eradication of this disease and others in which the infection takes place in a similar way: 1. The introduction of a Public Health Week into all the public schools (white and negro) in the South. During this week teach the elementary principles of preventing disease. For the South three great principles come into special consideration, namely; (a) Avoid soil pollution; thus hook-worm disease can be eradicated, and typhoid fever can be greatly reduced. (b) Do not spit on the floor; this precaution will result in decreasing the spread of tuberculosis and diphtheria. (c) Protect against mosquitoes; thereby preventing malaria, yellow fever, dengue and elephant foot. 2. Spread a knowledge of these three great principles by every possible means, not only in public schools, but through the press and by utilizing some of the advertising space in every street car in the South and by other means. (3) Interest the mothers of the South in these three great sanitary principles because if the mothers can only be persuaded to take the matter up they will save the lives of thousands of children. 4. Start out with the important fact that in this campaign no line can be drawn between the two races: (a) The white man who fails to recognize the importance of improving the sanitary condition of the negro, fails to go to the root of the evil; and he unconsciously invites sickness and death, especially to the women and children of his own race. (b) The negro who continues soil pollution, so common by members of his race, places a serious handicap upon the mental development of his own race, because hook-worm disease has a very serious effect upon the mentality. 5. Bring about a sanitary re-

form on the farms by persuasion if possible, by law if necessary. 6. Send to the chain-gang any person who deliberately pollutes any highway or back alley; for such pollution is in its last analysis nothing less than an evil in itself; it is in the nature of "*malum in se*"; it is an "aggravated offence against the public welfare," hence it should be prohibited and made a crime. 7. Conduct a merciless, but diplomatic campaign against soil pollution in the cities and towns as well as in the country. 8. Without opposing theoretical education, let us recall that for the poorer white people under discussion, the problem of prime importance is to give them healthy bodies in order that they may have sound minds.

The Texas Medical News, February, 1908.

X-Ray and Electro-Therapeutics.—Dr.

J. M. Martin says under the heading of tissue resistance that like all other therapeutic remedies the X-Ray does not produce the same effect on all tissues. It is found that some patients will require twice the number of exposures necessary in other cases to get the same results. He began about the same time the treatment of two women. One had a growth on either side of the nose somewhat larger than a quarter. She was dismissed at the end of six weeks entirely cured after having received twelve exposures. The other lady had a small growth of a similar nature on the side of the nose and was treated with the same tube coil and for the same length of time. It required nearly three times the number of exposures used in the former case to produce a cure. These two patients were brunetts and about the same age. Three cases of epithelioma of the lower lip were under treatment at the same time. The same coil tube, distance, and length of exposure were used in each case. One reacted after seven treatments; one required nine; and the other received twenty-one. The results were the same. Recovery in each case. As a rule the skin about the head and face offers more resistance to the ray than any parts of the body. Until a high degree of proficiency has been attained the operator should stay far within the boundary lines of safety and not try indiscriminately to produce therapeutic effects in a few treatments, for if he should, he will, some time produce a burn when he least expects it. A slight dermatitis appeared on the face of a man who had been exposed for one minute to a high vacuum tube energized by a twenty-four inch coil for a skiagraph. Had this man received a two-minute exposure he would have been badly burned. Such extreme cases will not occur

often, but since they have occurred it is likely that they will occur again. The tissue carries no index on the surface of the amount of raying it will stand. As a rule, thin-skinned blonds and red complected people are more susceptible to the destructive influence of the ray than the thick-skinned or dark complected.

Maryland Medical Journal, May, 1908.

Some Post-Operative Complications of Peritonitis.—Dr. R. Winslow believes that there is an inherent tendency in peritoneal irritation and inflammation of plastic exudate in greater or less quantity upon the surfaces of the intestines, by means of which they become adherent to each other or to some contiguous structure, and in consequence of which in a few instances there follows an angulation of the gut or narrowing of its lumen to such a degree that intestinal obstruction is set up, with its dire train of symptoms and its frequently fatal result. When the abdominal cavity is opened and the viscera handled an additional traumatism is influenced, and when tubes or gauze are placed within the peritoneal sac adhesions to a certain extent must occur. Fortunately these adhesions are not generally followed by bad results, but in the exceptional case serious complications occur. Post-operative obstruction is generally due to adhesions, causing angulations or kinks in the gut more frequently than actual coarctation of its lumen. The patient who has been doing well is suddenly seized with cutting pains, tympanities and vomiting, and with an arrest of the downward passage of flatus and feces. The adhesions found on reopening the peritoneal cavity may be due to the original infection but are undoubtedly often provoked by the use of gauze or tubes for drainage. Is it not probable that the Fowler position favors adhesions and obstruction by causing too great a descensus of the intestine into the pelvic cavity? We indeed cure the patient of the peritonitis, but have them die of obstruction or save them by another operation, so as by fire. To prevent obstruction one should handle the intestines as little as possible, remove or repair the original focus of infection, avoid the use of gauze in the peritoneal cavity unless inclosed in tubes or rubber protective and by removing drains earlier. Also maintain the acutely inclined posture for a much shorter period than is customary, and as paresis favors adhesions peristalsis should be encouraged as soon as the acuteness of the peritoneal inflammation has subsided. The author also calls attention to his experience with a large "lamp chimney" tube where the small intestine in some manner became incarcerated in it

causing a genuine strangulated hernia within the tube.

Virginia Medical Semi-Monthly, May 8th, 1908.

The Modern Surgical Treatment of Exophthalmic Goitre—Analysis of Over Five Hundred Cases Treated Operatively—Conclusions.—Dr. A. P. Heinech says after a critical analysis of the voluminous literature of the subject has convinced him that the following conclusions are justified: 1. Thyroid gland substance or any of its preparations should never be administered in the treatment of exophthalmic goitre. Their use invariably increases the dangers of operative interference. 2. As a therapeutic agent in the treatment of exophthalmic goitre, thymus gland substance and its various preparations are useless. 3. Parathyroid extract as a curative agent of exophthalmic goitre has no efficiency. Mac Callum says that the alterations noticed in the glandular parathyroidae do not seem to be constant or sufficiently extensive to support the idea that parathyroids have anything to do with the development of the disease. 4. The medical treatment of the disease is, the use of belladonna being excepted, in reality largely symptomatic. 5. All symptoms of medical treatment of this affection, be they hygienic, dietetic, medicinal, organotherapeutic or electrical in nature are unsatisfactory. 6. Serum therapy is as yet in an experimental state. 7. It is now demonstrated a fact that all operative measures which tend to lessen the secretory activity of the thyroid gland, or to diminish the amount of thyroid gland tissue present in the organism are of value in the treatment of this disease.

Surgical Aspects of Tuberculosis.—Dr. J. T. Buxton believes that the treatment of this destructive disease is of utmost importance and second only to its diagnosis. As in other conditions that admit of and frequently demand, surgical measures for recovery, it may be treated and sometimes successfully without any surgical intervention whatsoever. No matter how slight the infection or what part of the body affected we must treat any form of tuberculosis as a constitutional disease. If we can remove the focus of the disease, no matter where it is, much is accomplished, as the danger lies in the fact that the tubercle bacilli may push their way into neighboring tissues or organs, or be carried to distant parts through the blood or lymph and do great damage. If the danger of removal of a focus is greater than its pressure, it would be wiser to leave it. This sometimes is the case; e.g., pulmonary tuberculosis and in the epiphyses

sometimes—The danger of mixed infection must always be considered and no surgical procedure undertaken without the strictest aseptic precautions. If one can obtain rest of the part involved recovery would be much more rapid. If the lung could be brought to rest for a while, its treatment would be much more satisfactory.

Post-Operative Abdominal Fistula.—

Dr. M. D. Delany outlines the following treatment, in the beginning after the recognition of the fistula, the best treatment consists in keeping the patient perfectly quiet during the first four or five days, in order to enable the adhesions to become dense, changing the dressings four or five times a day, washing the edges of the wound with alcohol and applying carbolyzed zinc ointments. After five days irrigate the bowel with normal saline solution until the solution comes through clear; then wash out the wound with saline solution followed by peroxide of hydrogen. Nourish the patient as often as possible in order to keep up their strength. With this treatment the majority of cases heal spontaneously. In those cases where the wound does not close spontaneously something foreign will be found in the abdominal cavity, such as an infected ligature, a piece of gauze drain, or a sponge, and just as soon as it is removed the fistula will close. If it does not, an operation should be performed and the edges turned in.

Kuhn's Suction Mask for Treatment of Pulmonary Tuberculosis.—

Dr. G. J. Williams believes the advantages of this mode of treatment are first, and the most striking, is the immediate change in the type of respiration; owing to the increased negative pressure in the thorax, the diaphragm is drawn by suction upwards, participating feebly in respiration; a costal type of breathing is the result and the widening of the upper chest follows. Associated with the consequent hyperemia is an accelerated flow of lymph, differing in this respect from other passive congestions which are associated with injurious amounts of lymph stagnation. Second, absence of danger of hemorrhage, the mask being employed as a prophylactic. Third, strengthening the heart. Fourth, stimulation of blood forming organs by diminished oxygen tension, analogous to that which takes place in high altitudes without the disadvantage of masked respiration effort. As to the influence on cellular elements of the blood, Prof. Kuhn's experiments show that by a moderate interference with the respiration for an hour a marked increase in the cell elements and haemoglobin in the peripheral circulation occurs, and after the use of the mask

of from a few days to a few weeks, using it an hour each morning and evening this increase is absolute and permanent. The increase is accounted for on the same theory applied to the increase of cells by going into high altitudes.

The Southern Clinic, May, 1908.

The Duty of the Venereal Surgeon Towards the Safety of the Public Health.

—Dr. C. A. Bryce says that the nature of the venereal diseases and their sequences should be plainly made known to every one, so that they may be guarded against possible infection from unsuspected sources. The victims of these diseases should be told of the dangers of delay in securing the services of competent specialists for treating them at the earliest possible moment, and they should be made aware of the danger they are to others. The author also adds: Why should a pure-hearted, confident girl give her soul and body in matrimony, which means maternity with all its pains and responsibilities, without a single thought of safe-guarding her health and that of her offspring against the venereal peril that may menace her through the object of her affections in the person of the young man who has been "sowing his wild oats" and now concludes to settle down? Mothers tell your daughters what marriage offers to the pure and virtuous if you can, but do not fail to remind them that there is no greater hell on earth for them than the rude awakening to the fact that they are poisoned with the leprosy of the brothel and that their children will carry through life the awful inheritance of an unfortunate union of the pure with the poisoned.

Nashville Journal of Medicine and Surgery, April, 1908.

General Anaesthesia.—Dr. J. E. Bell believes that in emergency cases, where the patient has recently taken food, the stomach should be emptied by stomach tube. When the patient has been properly prepared and is ready for the anæsthetic the mouth should be examined for false teeth, or anything that could cause strangulation. The anæsthetic should be begun very slowly, drop by drop, holding the inhaler some distance from the face and gradually brought closer to the face and increase the flow of the anæsthetic in the same way. A patient that breathes rapidly usually requires more of an anæsthetic than a slow breather, as the inspiration is shallow and the lungs are not fully expanded. When any dangerous condition arises the anæsthetic should be stopped immediately, and at once make use of restoratives. In cases of shock, heart or

respiratory failure, the battery is, above all things, to be relied upon. When the patient first shows any symptoms of these conditions; strychnine in large doses hypodermically; adrenalin chloride solution and digitalin may be of benefit. All stimulation should be directed toward raising the blood pressure, not lowering it; so would never suggest nitroglycerine, alcohol, etc.

New Orleans Medical and Surgical Journal,
May, 1908.

Operations on the Tubes and Ovaries.

—Dr. G. R. Fox says that there is considerable variance in the minds of most operators as regards what constitutes conservatism. Many do without any operation whenever possible, and when they do operate, make a clean sweep, holding that to be a truer conservatism than an operation which carries with it the possible risk of a second resort to surgical relief. After an exhaustive review of the subject of "conservatism vs. radical work" and a discussion of "technic plastic or repair work" the author draws the following conclusion: Barring the presence of the menopause, inflammation, pus, tuberculosis, and malignant disease, conservative work should be done; that every organ or part of an organ consistent with the health and well-being of the patient should remain undisturbed; that in these cases there is much room for exercise of good judgment and due discrimination; that the risk of infection and of secondary operation from portions left behind are rather remote in properly selected cases. He further concludes that the number of pregnancies occurring after tubal operations is very small; that the results after plastic work on the ovaries are better; that age, the presence of pus, tuberculosis, malignant disease indicate, as a rule, radical work; the prolapsed ovaries generally speaking, should be elevated in the pelvis by suspension operations on the uterus, by shortening the ovarian ligament or by placing the ovary in front and on top of the broad ligament; that the functions of the tube and ovary shall be conserved whenever consistent with health.

Infantile Scurvy.—Dr. E. D. Fenner believes that the diagnosis of this disease in infancy is not difficult provided the physician keeps in mind the fact that obscure painful affections of the limbs in children and hemorrhagic manifestations may be due to scurvy. Having his suspicions once aroused the therapeutic test will nearly always promptly settle the question. No disease responds more quickly and astonishingly to proper treatment than scurvy. Where orange juice cannot be given or

where a child does not seem to take it well any other fresh vegetable material may be substituted. Thus we may use pineapple juice, scraped apple, fresh sieved potato, fresh grape juice, and fresh beef juice, in addition to a liberal supply of fresh cow's milk. Where the scorbutic symptoms have been controlled it is often necessary to institute measures to combat the rickety symptoms. And tonics containing cod-liver oil and hypophosphites and some preparation of iron may be administered with good results.

Texas Medical Journal, May, 1908.

Cause and Management of Non-Specific Infection of the Extremities.

—Dr. L. Sexton says that sterilized water and salt and boracic acid solutions usually serve as good purpose for irrigation as do the stronger germicidal agents, which in many instances, if used strong, destroy the tissue, coagulate the albumen, as well as any destructive action they may possess on the germs present. The horny hand of a laborer is best softened by a surgical aseptic poultice, that is an abundance of sterilized gauze kept wet with either one-half of 1 per cent. carbolic acid solution or 1-5000 bichloride solution. Local applications of thirty grains chloride of zinc to the ounce of water or pure carbolic acid immediately followed by alcohol may be required for some cases in which the infection has been of a malignant type. All retention sutures, manipulation of the part and cutting away of any except absolute necrotic tissue should not be recommended from the fact that it opens up that many more sources of infection. After cellulitis has begun the use of large but moist applications will assist in producing resolution or in relieving the severity of the disease by keeping the capillary circulation open. If the phlegmonous process of inflammation or cellulitis continues, threatening gangrene or sloughing of the part, numerous free longitudinal incisions are made.

The American Practitioner and News, May, 1908.

Cancer of the Breast.

—Dr. F. W. Sannell thus describes the operation: An incision is started a little below the shoulder joint following a line about one inch from the pectoral border, and then including in a circular way a greater part of the entire breast which ends at the lower part of the axilla and which meets the first incision. This is lifted away from the muscles and the breast is left lying with its connection with the pectoral muscles. The operator then runs his finger into the axilla and exposes the tendon of the pectoralis major

It is then divided, leaving quite a long portion of the tendon and fibers. This gives a complete view of the axilla and its contents which can be removed, important structures being preserved, and at the same time having a complete control of the arterial supply. After this has been done the fibers of the pectoral are grasped with the hand, a vulcellum forcep grasping the breast as a whole, is now stripped from the thoracic wall. The fibers of the tendon, of the pectoralis major are now sutured to the fibers remaining of the pectoralis minor, thus giving better movement of the patient's arm. Drainage is always used for a few hours. The patient's arm is dressed away from the body and they are allowed to assume an upright position as early as possible.

Atlanta Journal-Record of Medicine, May, 1908.

Weaning.—Dr. H. McHatton says that mothers often come and announce the fact that their milk did not agree with the infant and that several weeks ago they weaned it, since which time they have been unable to get any food that would agree with it. As this catastrophe usually occurs about the time they have begun to feed the child on any old thing from sweet potatoes to grated ham. One is often surprised to find that it is impossible to convince the mother that the new food is causing the trouble. If one is not successful in re-establishing the flow of milk conditions are serious and often fatal to the child. Another cause of a large mortality is the prevalent superstition that the milk of a pregnant woman is, as they express it, "poison to the child." This superstition is so general that it causes the death of an untold number of children each year. They, the mothers never wait to seek advice when they think they are pregnant, which proves in most instances not to be the case, but immediately and totally wean the child. It is usually some days before the explosion occurs, then more time is lost before advice is sought on account of the sister superstition that a teething child should have loose bowels. In the interest of the infant the author never advises weaning simply because pregnancy has occurred; but in the interest of the mother and unborn babe it is often required—the majority of women not being physically capable of standing the double drain of pregnancy and lactation—sudden complete weaning never; invariably observe the usual gradual method.

Nashville Journal of Medicine and Surgery, May, 1908.

Charge to Graduating Class.—Dr. L.

E. Burch advised the members of the class that if they had taken up medicine with the idea of getting rich they should stop right now and put their energies to some other use. All that can be expected, provided one does his duty, is a very comfortable living. It is just and right that one should be paid for his services and when a patient is able to meet his obligations and shows a tendency to avoid payment it is one's duty to make him pay, and pay in full. On the other hand it is just as much one's duty to give the afflicted among the poor the same attention as the rich patients and do this cheerfully and with pleasure. The medical man should have that love for his profession that his first and only ambition is the relief of sickness and this will give him more pleasure and genuine happiness than all the money in the world.

The Southern Practitioner, May, 1908.

Charge to the Graduating Class, University of Tennessee Medical Department.—By Dr. H. Wood.

Virginia Medical Semi-Monthly, May, 1908.

Gall Stones.—Dr. S. Lile gives the following under the heading of Differential Diagnosis: Cholelithiasis may be confounded with gastric ulcer, or rarely carcinoma of the pylorus, duodenal ulcer, inflammation of the pancreas, appendicitis in its varied forms, diseases of the right kidney (especially calculus) or kinkiness of the ureters or vessels which produce Deitl's crisis, lead colic, affections of right pleura or lung and the gastric crisis of locomotor ataxia. The greatest difficulty in differentiation will be found in cases of gastric or duodenal ulcer. In some cases both diseases may exist at the same time. In almost all cases of gastric and duodenal ulcer there is a relationship between the taking of food and the onset of pain. In gastric ulcer the pain begins in one, two, or three hours after taking food, while the pain in duodenal ulcer is almost instantly relieved by taking food. The pain from gastric or duodenal ulcer is usually in the middle line of the epigastrium, while that from gall stones is to the right. The confusion with appendicitis occurs only when the appendix is abnormally situated—along the ascending colon with its tip towards the liver. Renal colic will not ordinarily be confusing, for the pain radiates down to the ureter into the scrotum, vulva or thigh.

Epidemic Influenza Otitis Media, Sequellae and Treatment.—Dr. C. R. DuFour concludes his paper by advising that in treating epidemic influenza the ears be watched, the nasal cavities and naso-pharynx.

rynix kept in as aseptic a condition as possible, by the use of an unirritating aseptic spray. Caution the patient to wait a few moments before blowing the nose, and when he does do so keep both nostrils open. At the first indication of pain drop a few warm drops of 10 per cent. carbolyzed glycerine into the ear, wrap it up in cotton and place a hot water bottle in it. A Japanese hand-stove is an excellent device for applying heat, the degree of which can be regulated by wrapping in a towel; one charge of fuel will supply continuous heat for one hour. Being flat they can be applied to any surface, and being light in weight they do not oppress the patient as do hot water bottles. If pain continues the pressure must be relieved by a paracentesis.

Book Notices.

Modern Medicine. Its Theory and Practice.

In original contributions by American and Foreign Authors. Edited by William Osler, M. D., Regius Professor of Medicine in Oxford University, England, formerly Professor of Medicine in Johns Hopkins University, Baltimore; in the University of Pennsylvania, Philadelphia and in McGill University, Montreal. Assisted by Thomas McCrea, M. D., Associate Professor of Medicine and Clinical Therapeutics in Johns Hopkins University, Baltimore. In seven octavo volumes of about 900 pages each, illustrated. Volume IV, just ready. Price per volume: cloth, \$6.00, net; leather, \$7.00, net; half morocco, \$7.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

In a work covering the vast domain of Internal Medicine it is no small merit to have the scheme logical and the division into volumes so arranged that the whole of a natural group can be taken from the shelf between a single pair of covers. It is a token of skill to do difficult things with apparent ease, and Professor Osler has certainly so managed the classification and division of subjects in Modern Medicine, two very important practical considerations.

The fourth volume, just from the press, accordingly comprises all Diseases of the Circulatory System and of the Blood including the Spleen, Thymus and Lymph-Glands. Its list of authors exhibits the same editorial purpose and ability to know and to secure the best writer for each subject. As the plan for the whole work was of course developed before any part was undertaken, the seven volumes when as-

sembled will constitute an even and complete library on General Medicine, and it may be remarked that as the leading authority on each subject was chosen without regard to nationality or geography, Modern Medicine, therefore, reflects the best human knowledge at the present time.

Good things sell themselves, and, conversely, a thing which sells itself is good. Modern Medicine answers this test by exhibiting a sale equal to five ordinary editions before it is even half issued. It is a practical consultant for every physician. In its pages he can post up on the methods and treatment developed by the most successful men the world over. Against such knowledge a man practising on past ideas or individual experience is handicapped. To have the best equipment is compulsory in the long run, and the man who most quickly recognizes such aids as Modern Medicine gains both knowledge and time. Judging by its sale so far and its rate of progression Modern Medicine is destined to go into the library of every alert practitioner in America.

A Text-Book of Surgical Anatomy. By William Francis Campbell, M. D., Professor of Anatomy at the Long Island College Hospital. Octavo of 675 pages, with 319 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

Anatomic facts are dry only as they are isolated. Translated into their clinical values they are clothed with living interest. No teacher can impart, or student assimilate, all the details of anatomy, for the facts must be sifted and the reason for their acquisition demonstrated by directing attention to the practical problems with which they are associated. Dr. Campbell has made no attempt to present in this volume all the anatomic data. He has selected only those which have a practical bearing, and has emphasized those structures and regions which have a peculiar interest for the surgeon. The "anatomic mind," is as essential to a surgeon as the "aseptic conscience," and the author of this work is peculiarly fitted both as an anatomist and surgeon to collate and present those facts which will prove helpful to the student and practitioner in mastering the essentials of practical anatomy. The book is beautifully illustrated with numerous cuts which of themselves are capable of teaching many valuable lessons. The author systematically describes the human body under the following heads: The Head and Neck; The Thorax; The Upper Extremity; The Abdomen and Pelvis; The Spine; The Lower

Extremity. The publishers deserve special credit for their production, in their usual excellent manner, of so handsome a volume.

Goepp's State Board Questions and Answers. State Board Questions and Answers, by R. Max Goepp, M. D., Professor of Clinical Medicine at the Philadelphia Polyclinic. Octavo volume of 684 pages. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$4.00 net; Half Morocco, \$5.50 net.

Every graduate who desires to practice medicine must pass a State Board Examination, and to aid him in successfully passing such an examination this work will be of inestimable value. Dr. Goepp has taken pains to collect the many questions asked in the past by boards of various States, and has arranged and classified them under subjects in such a manner that the prospective applicant can acquire the knowledge on any branch with the least difficulty. In those instances where a doctor for any reason desires to review for examination, State Board or other, this volume will save him an endless amount of labor and will no doubt prove of great value to all who are preparing for similar tests.

The Diagnosis and Treatment of Diseases of Women, by Harry Sturgeon Crossen, M. D., Clinical Professor of Gynecology—Medical Department Washington University—Gynecologist to the Washington University Hospital and Chief of the Gynecological Clinic—Consulting Gynecologist to the Bethesda Hospital, St. Louis Female Hospital and St. Louis City Hospital, etc. Octavo Volume with 800 pages; with 700 Illustrations. Price, Cloth, \$6.00; Morocco, \$7.50. C. V. Mosby Medical Book and Publishing Co., 713, 714 and 715 Metropolitan Building, Grand Ave. and Olive St., St. Louis, Mo.

The General Practitioner has long felt the need of a book on the Gynecology that takes up in detail the Diagnosis and Treatment of Diseases of Women. The great reluctance of the majority of women to submit to an operation has made it imperative on the part of the physician to acquaint himself with all the known therapeutic remedies for Gynecologic Treatment. Doctor Crossen has supplied the General Practitioner with a valuable working guide in his book. Detail has been his constant aim. Illustrations have been used unsparingly to emphasize points of importance, and no medical book published has been more richly adorned with genuinely beautiful, helpful pictures. They alone would make the book a valuable one. That he

has done his work well is evidenced by the unqualified approval given his book by the leading Gynecologists and Medical Journals of the country.

Diseases of Infants and Children. The New (2d) Edition, Revised. A Manual of Diseases of Infants and Children. By John Rurah, M. D., Clinical Professor of Diseases of Children. College of Physicians and Surgeons, Baltimore. Second Revised Edition. 12mo volume of 423 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Flexible leather, \$2.00 net.

This little book is admirably adapted for the medical student, not that it should supplant the larger text-book but that it enables the student to grasp quickly the more important parts of the subject of pediatrics and likewise furnishes him with a rapid reference-volume for daily use after he has begun actual practice. The average medical student attending the third and fourth sessions has about fifteen different branches which to familiarize himself. The text books on these subjects average about 1000 pages each. Consequently the student who is busy all the day at lecture, recitation and clinic has small opportunity to review all he has considered during the day as well as fill in the many gaps in his curriculum. A small concise volume such as the one under consideration proves itself eminently fitted for just this class of readers. Besides it is not condensed to be of service to the busy practitioner. It is thoroughly up-to-date in this new second edition. Many chapters have been revised, enlarged and made more comprehensive. Bound in flexible leather the volume is very handy, durable and convenient. A large number of references to journal articles enable the reader to look up any given subject in the medical library.

International Clinics, a Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Permatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by W. T. Longcope, M. D., Philadelphia, U. S. A. Volume I. Eighteenth Series, 1808. J. P. Lippincott Company, Philadelphia and London.

The International Clinics are conceded to be one of the very best medical periodicals published in America. It contains within the pages of every issue the very

best work, not only of American physicians, teachers and scientists, but also of those in foreign countries. The articles in this latest volume are quite up to the standard set by the editors of the Clinics.

Practice of Medicine for Nurses, by George Howard Hoxie, M. D., Professor of Internal Medicine, University of Kansas. With a chapter on the Technic of Nursing, by Pearle L. Laptad, Principal of the Training School for Nurses, University of Kansas. 12mo of 248 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$1.50 net.

According to the author the purpose of this book is to provide for those who care for the sick either professionally or in the home, such information as shall be most helpful in following the directions of the medical attendant, in caring for emergencies. He emphasizes his belief that the nurse should neither diagnose nor prescribe and has therefore given little space to differential diagnosing and the dosage of remedies. In the first part of the book are found three chapters containing general considerations in which are given definitions of health and disease, theories of diseases and causes. Various methods of procedures which the nurse must know are described clearly and concisely. Following these there are a number of short chapters on various diseases and disease conditions. The language of the author is unusually simple and his style is easy and clear. The illustrations are not abundant but those which have been inserted are helpful and are quite good. The temperature charts are as good as any we have seen. The nurse will find the book a useful guide in many ways.

Good Company for a Jaunt.

Vacation time is here again, and when you go on your holiday you will be looking for reading matter to while away an occasional lazy hour. At such times one wants something bright and entertaining, and, above all, complete. This description covers the July Lippincott's Magazine.

The leading novelette by Mrs. John Van Vorst is entitled "Second Quality"—this name applies neither to plot or treatment, but rather to the stripe of society people, so-called, who are for the most part foreign born. They rally round the hero, an American millionaire, who goes to Europe to spend his money, and to make friends, which he has neglected to do earlier in life owing to peculiar domestic conditions. The story's denouement is novel and dramatic, while it satisfies one's sense of justice; and

the sweet, pure love scenes throughout the narrative present a pleasing contrast to its grosser side.

The short stories also seem to have been specially chosen for summer entertainment. Dorothea Deakin is the author of a particularly striking tale called "The Patchwork Lady"; Karl von Kraft contributes an idyl of Venice when the Campanile fell, a Harvard student and his American sweetheart giving ground for his title of "Pendleton '01"; Caroline Lockhart's story, "The Yankee Snob," relates a touching episode of the South; in his customary realistic vein Will Livingston Comfort writes "The Leper Valley"; and a story of diverting humor is "Fudge," by Clifford Howard.

"A Ballad of Galway," a posthumous poem by Ethna Carbery, will affect many admirers of Ireland's beloved and young poet. The last two years of her life were passed as the wife of Seumas McManus, the well known humorist.

The world-wide "suffragette" movement makes seasonable a significant paper on "Woman Suffrage in America," by Annie R. Ramsay; and an article on "Our Inland Empire," by Day Allen Willey, describes a wonderland in the Northwest which offers a bounteous living to industrious settlers. Thousands have already made their homes there, and thousands more are flocking in every month, yet the region is so big that there is room for all. The great number of per ones who are land-hungry will be deeply interested in these facts.

Other features of the month are "Blessed be the Builders," by George L. Knapp; "Predigested Fun," by J. B. E.; "Psychical Gymnasia," by W. P.; "Thackeray's Substitute," by D. K. Janowitz; and the important humorous department of sixteen pages—a huge joke, verily!

Miscellaneous.

Questions Asked by the North Carolina State Board of Medical Examiners.

PHYSIOLOGY AND HYGIENE

J. T. J. BATTLE, M. D., Greensboro.

1. Describe normal human blood.
2. Define *reserve*, *residual*, *complemental* and *tidal* air, give average quantity of each.
3. If Gasserian ganglion were removed, state results.
4. Describe *chyle* and how introduced into the general circulation.
5. Give the function of the *bile*; where formed; mention its two acids and two pigments.
6. Describe the factors which cause the heart sounds.
7. Describe the structure and functions of the *skin*.
8. How can malaria be eliminated from any locality.

IN THE RESTORATIVE STAGE

following such acute diseases as typhoid fever, pneumonia, diphtheria, whooping cough and the exanthemata, there is no remedy so generally useful as

GRAY'S GLYCERINE TONIC COMP.

It aids digestion, promotes assimilation and augments every vital function. Thus it overcomes depression and contributes materially to normal uninterrupted convalescence.

It restores, reinforces and reconstructs.

THE PURDUE FREDERICK COMPANY, 298 Broadway, New York City

Digalen

Sol. Digitoxin Cloetta

Reliable Heart Tonic. Promptly produces the splendid physiological action of digitalis; no menace of uncertainty nor cumulative effects such as usually accompany the exhibition of digitalis extract, tincture, infusion, etc. Marketed in $\frac{1}{2}$ -oz. vials.

Our Products are Sold by the Wholesale
Drug Trade Everywhere

Secacornin

Ergotin Roche

A new improved preparation of ergot. Meeting with high favor because it promises unusually prompt results. 16 min. Secacornin represent 61 grn. ergot. 16 min. fld. ext. ergot U.S.P. represent 16 grn. ergot. Sold in bottles of $5\frac{1}{2}$ drams (20 Cc.).

Thiocol

Potass. Guaiacol sulphionate Roche

The admirable therapeutic effects of guaiacol without its disastrous gastric results. Useful in coughs, pneumonia, typhoid fever, incipient tuberculosis. Procurable in three forms: Powder; 5-grn. Tablets; and Syr. Thiocol Roche, 6-oz. bottles.

For Samples and Literature: Mark
Name of Medicament of which you
want a Sample: cut out this ad
and mail it to us with your address

In erysipelas and chilblains **Thigenol** (soluble sulphur compound, odorless on use) is worthy of trial. **Airol**, odorless wound antiseptic has proved interesting to many physicians.

The Hoffmann-La Roche Chemical Works, 80 John St., New York

The Jefferson Medical College Of PHILADELPHIA.

Founded 1825.

A Chartered University since 1838.

NEW COLLEGE BUILDING.

NEW LABORATORIES.

NEW HOSPITAL.

Eighty-fourth Annual Session begins September 24, 1908, and continues eight and one-half months. Practical manual training in ten different and fully equipped laboratories. Recitations by the members of the Faculty and others. Clinics and bedside ward work in small groups a prominent feature of the curriculum. The new Jefferson Hospital built at a cost of \$1,500,000 with unsurpassed facilities for clinical teaching, entirely owned and controlled by the College, is devoted to the instruction of students. Lying-in cases at the Jefferson Maternity. Clinical instruction at the Philadelphia, Pennsylvania, German, St Agnes and Municipal Hospitals.

Three-fourths of the graduates enter hospitals.

Summer and Post-Graduate courses open to qualified applicants.

For Circular and information address

Ross V. Patterson, M. D.,

Sub-Dean.

9. How does milk, water and food become contaminated and produce typhoid fever?

10. What is a disinfectant? Mention two physiological agents, two metallic, and two non-metallic ones.

EXAMINATION ON PRACTICE OF MEDICINE

By M. H. FLETCHER, M. D., Asheville, N. C.

1. Give differential diagnosis between Acute General Miliary Tuberculosis and Typhoid fever.

2. Name the most frequent complications of Pneumonia.

3. Name causes of Hematemesis.

4. Define Aphasia, Pellagra, Chlorosis.

5. Give relative frequency and etiology of Mitral Incompetency.

6. Give differential diagnosis between Gout and Arthritis deformans.

7. Give symptoms of acute Nephritis.

8. Define Tabes Dorsalis, give characteristic symptoms and etiology.

9. How would you distinguish Ascites, from an Ovarian cyst.

10. Write one and only one Rx. for temporary relief of Migraine.

OBSTETRICS AND GYNECOLOGY

By A. A. KENT, M. D., Lenoir, N. C.

1. Name (a) the causes of ante-partum hemorrhage in pregnancy; (b) post-partum hemorrhage.

2. What are the means that may be employed to cause firm contraction of the womb after completion of the third stage of labor?

3. If the umbilical cord should become severed too close to the abdominal wall of the infant to be tied, and there should be hemorrhage from it, how would you treat it?

4. Give (a) the indications for Caesarian section, (b) the contra-indications.

5. How would you treat dysmenorrhœa due to congenital stñosis of the cervix?

6. Name the forms of fistula that are met with in the female genital tract.

7. Name (a) the benign neoplasms of the uterus; (b) the malignant neoplasms of the uterus.

8. Under what circumstances, if any, would you (a) irrigate the abdominal cavity after an ovariectomy; (b) employ drainage after an ovariectomy?

Note:—Do not undertake to write all you know about the subjects named in these questions. Most of them should be answered in one to five lines each across your book: the longest may be answered in twelve lines. Do not write more than one page in answer to any one of them.

CHEMISTRY AND THE DISEASES OF CHILDREN.

By G. T. SIKES, M. D., Grissom, N. C.

1. What is the standard of chemical compari-

son? (a) Give combining weight and density.

2. What are the two great divisions of chemistry? (a) Wherein is the chief difference?

3. What is ozone? (a) Give formula.

4. What is gun-cotton? (a) How is it made?

5. What is carbon? (a) What is the purest form?

6. Define measles. (a) What is period of incubation?

7. Define mumps. (a) What are the complications?

8. Define dysentery. (a) Give treatment.

9. What is jaundice? (a) Give etiology.

10. Define croup. (a) Give prognosis.

SURGERY

By CHAS. O'H. LAUGHINGHOUSE, M.D., Greenville.

1. Surgical shock. Give prophylaxis.

2. Hemorrhage. Give constitutional symptoms.

3. Ranula. Describe it.

4. Malignant œdema. Describe it.

5. Myxomata. Give seats of pre-delection.

6. Perioritis. Give diagnostic symptoms.

7. Potts fracture. How would you dress it? And why?

8. Torticollis. Give operative procedures for relief of same.

9. Hip joint disease, second stage. Give diagnostic symptoms.

10. Phlyctenular keratitis. Treatment.

ANATOMY

By JAMES M. PARROTT, M. D.

1. After the brachial artery is ligated in the upper third of the arm by what branches is the collateral circulation carried on?

2. Give the boundaries of a femoral canal.

3. Locate the fissure of Rolando (surface markings).

4. Name the contents of Scarpa's triangle.

5. At what point would you trephine for intracranial hemorrhage from the middle meningeal artery.

6. Give the apparent (superficial) and deep origin of the 3rd cranial nerve (motor oculi).

7. Mention the contents of the left lumbar region (abdomen).

8. Into what do the ends of the Eustachian tube open?

9. Describe the female urethra. (Do not give its relations or histology).

10. Describe the odontoid process of the axis and name the bone or bones with which it articulates.

N. B. Answer only 8 questions.

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Juvenile Tabes Dorsalis—Ernest Jones the Brit. Jour. Child. Dis., says the most probable features distinguishing the symptoms of juvenile tabes from those of adult seem to be the early and frequent appearance of urinary incontinence, of headache and of amblyopia; the comparative rareness of girdle pains and the late onset of ataxia which is usually little marked. Of the chief features which distinguish juvenile tabes from other affections that resemble it, especial stress is to be laid on the Argyll-Robertson pupil, the loss of the Achilles jerk, followed by that of the knee-jerk, primary optic atrophy of a characteristic type, the typical lightning pains, and the presence of lymphocytosis and excess of albumin in the cerebrospinal fluid.

To Remove Silver Nitrate Stains from Skin:

Hydrargyi Bichloridi,
Ammonii Chloridi, aa.....10 Gm.
Aque.....80 Gm.

The stain is said to disappear immediately.
—Therap. Monatsschrift.

Useful in Myocarditis—Achtri (Berl. klin. Woch.) states that digalen, (soluble

digitoxin) the preparation to be preferred in order to avoid cumulative effects. It is especially useful in myocarditis, cardiac weakness of chronic type, and in the cardiac disorders which occur in chronic nephritis. The ordinary dosage is from 7 to 14 drops of the solution in which the drug is marketed; these quantities may be administered for continued periods in the above affections without causing unpleasant by-effects.

New Method of Nephropexy—Monzar-do's (Gayz. degli. Ospedali e delle Clin.) method of anchoring the kidney consists in a prolongation of the ordinary lumbar incision as far as the twelfth rib, which is exposed, and the periosteum detached in the middle third by an incision along the rib. The bone is resected obliquely upwards by way of the lower costal margin. The inner thin segment, which remains behind and is still attached to the periosteum, is fractured and conducted under the capsule through the upper pole of the kidney. A simple suture serves for the attachment. He points out the simplicity, reliability and satisfactory results of his method.

The Samuel D. Gross Prize—Fifteen Hundred Dollars.

Essays will be received in competition for the prize until January 1st, 1910. The conditions annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens."

It is expressly stipulated that the competitor who receives the prize, shall publish his essay in book form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery, and that on the title page, it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery.

The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 S. 13th St., Philadelphia," on or before January 1, 1910.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

WILLIAM J. TAYLOR, M. D.,
RICHARD H. HARTE, M. D.,
DEFOREST WILLARD, M. D.,
Trustees.

Philadelphia, June 15th, 1908.

Dr. Osler a Possible Lord Rector.

It is announced that Dr. William Osler, Regius Professor of Medicine at Oxford University, has allowed his name to be used as a non-party candidate for the post of Lord Rector of the University of Edinburgh. He is said to be the first physician ever nominated for this office, and is warmly supported by the medical students. His opponents are Winston Churchill, President of the Board of Trade, and George Wyndham, ex-Chief Secretary for Ireland.

A Woman Physician, President.

The general Practitioners Medical Society of Columbus, Ohio, at its last annual meeting elected Dr. Ida M. Wilson, President. The society has had most interesting programs during Dr. Wilson's administration and there is a general opinion that the club has had no more efficient executive. Women physicians usually "make good," if a bit of pertinent phraseology is allowed us.

To Allay Vomiting in Cancer of the Stomach.

Robin (La Quinzaine therapeutique) gives four to five drops of the following mixture in milk before each attack:

R

Picrotoxine.....0.05 gramme;
Alcohol.....q. s.;
Morphine hydrochloride.....0.05 gramme;

Atropine sulphate.....0.01 gramme;
Bonjean's ergotin.....0.01 gramme;
Distilled cherry laurel water. 12.0 gramme.

M.

Disease of the Hypophysis Cerebri; Anomalies of Growth Associated with Temporal Hemianopsia.

It is not so much true acromegaly as other abnormalities of growth to which Uthoff refers in a paper recently read before the Heidelberg Ophthalmological Society in supplement of a paper published by him in 1897. In three cases now published the principal feature associated with alteration of the nelds was an abnormal fatness of the body along with slight gigantism, but not true acromegaly. He asks the question, answering it for his own part in the affirmative, whether in presence of temporal hemianopsia, obesity, and abnormal bodily development, one is justified in diagnosing a tumor in the region of the pituitary body. It is not pretended by the author that he was the first to notice this undue obesity; in certain cases with similar symptoms the hypophysis has, however, been found unaffected, unless perhaps by pressure starvation. This corpulence is found to exist much more frequently in younger patients than in older ones. Brissaud and Meiger consider that exaggerated activity of the hypophysis leads to giant growth in children, to acromegaly in adults, and later in life to thickening of the soft parts.—Ber. d. Gphth. Gesellsch., Heidelberg, 1907.

A Depilatory to be Used Before Surgical Operation.

Cases may arise where it may be very desirable to shave a patient without recourse to the razor, when a satisfactory depilatory is a desideratum. The following preparation, like all the tried depilatories, combines an alkaline caustic action with that of a soluble sulphide:

R Monosulphid of sodium.....1 part.
Quicklime.....1 part.
Starch2 parts.

Water, a sufficient quantity to form a stiff paste.

The monosulphid and the quicklime are to be separately pulverized. An intimate mixture is then made with the starch. The amount of water added must be gauged carefully, for too much will give a thin paste of no value, while too little water produces a crumbly mass that has no depilatory action. The water should be added very slowly, until a mass of smooth, salvelike consistency is obtained.

Before application, the patient must be thoroughly washed; all the longer hairs should be removed with a pair of scissors.

The paste is then freely applied with a spatula, forming a uniformly thin layer over the desired place. After five minutes the salve may be removed with a sterile swab of cotton. The skin is to be thoroughly washed with a sterile distilled water until all the alkali is removed. A clean, sterile shave is thus obtained on short order, and the surgeon may proceed with the operation.—*Journal de Medicine et de Chirurgie Pratiques.*

Cardiac Failure in Pneumonia.

In acute pneumonia, the second cardiac sound over the pulmonary artery is frequently found to be accentuated. This sign is a valuable one, and gives the practitioner an indication as to the condition of the pulmonary circulation. The pulmonary second sound becomes very much less distinct when the right auricle and ventricle become distended, and the right ventricle is unable to completely empty itself. As the right side of the heart becomes engorged, there is usually found to be an increase of the cardiac dullness to the right of the sternum. "With gradual heart weakness and signs of dilatation, the long pause is greatly shortened, the sounds approach each other in tone, and have a foetal character (embryo-cardia)." Occasionally, as early as the third day in a case of acute lobar pneumonia, there may be a sudden and early collapse of the heart, the pulse becomes rapid and feeble, and there is an increasing cyanosis. For this cardiac failure in acute pneumonia, the immediate exhibition of heart stimulants is indicated. Administration by mouth should not be resorted to, but hypodermic of strychnine or intravenous injections of tincture of digitalis or a hypodermic of ether should be given at once.

In some cases, the cardiac failure is due to the paralysis of the vaso-motor center, which is situated in the lower part of the floor of the fourth ventricle, and there is consequently a general fall of arterial blood pressure; this is due chiefly to the action of the toxin upon the nerve centers. In this condition, the pulse becomes soft and easily compressible, the facies gray, the hands and feet cold, the skin bathed in a cold sweat, and there is a progressive prostration.—*Practitioner, London, March, 1908.*

Lotion for Mosquito Bites.

According to Royet (*Lyon Medicale*) a solution of calcium hypochlorite, of the strength of one per cent., is an excellent topical application for the relief of bites of mosquitoes and, in general, of all insect bites.

ELIZABETH COLLEGE and **Conservatory of Music**

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A HIGH GRADE COLLEGE FOR WOMEN.

Beautiful suburban location, 20 acre campus, overlooking the city, fine buildings; university educated, experienced teachers.

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Illustrated catalogue sent free on application.

CHAS. B. KING,

President.

Diminution of Chlorides in Bright's Disease.

Prof. H. Strauss, of Berlin, was the first one to show that the retention of salt in the tissues plays an important role in the pathogenesis of anasarca. This manifests itself in a diminished excretion of salt through the urine or in the simultaneous, gradual increase in weight. Owing to disturbed renal function, a retention of salt in the tissues will take place, and as soon as the tissues are saturated, every 6 Gm. of chloride of sodium will hold back one liter of water. There are cases where the body will hold a large amount of water, without distinct evidence of anasarca.

Two methods may be resorted to, to diminish the amount of chloride:

1. A diet poor in salt may be advised.
2. Drugs may be given, which stimulate the excretion of salt. The foremost drug here is diuretin, which increases the amount of urine and the percentage of salt. This drug is also indicated where the parenchyma of the kidney has been affected, since, according to the recent investigations of Loewi, it brings about a hyperemia of the kidneys. The author has prescribed diuretin even in the most severe cases of parenchymatous nephritis without seeing any deleterious symptoms which could be ascribed to the drug. A still more marked flow of blood through the kidneys can be best brought about by combining diuretin with digitalis.—*Folia Therapeutica.*

Anus Vestibularis; Sloughing of the Bladder; Retrollexed Gravid Uterus.

Orthmann found this combination in a

woman at the age of eighteen years. The last period had occurred at the end of January, followed by pains in the region of the bladder two months later. On May 1st voluntary micturition became impossible and incontinence of urine was observed. The latter symptom caused great distress, as the urine, which dribbled away constantly, was very fetid, smoky, and held pieces of broken-down tissue as well as clots. He examined the patient in the middle of the fourth month and found the uterus clearly definable, retroflexed and incarcerated. The bladder was distended to an extreme degree, yet its walls were thickened. Although the patient's temperature was high at the time, the pregnancy was uninterrupted and the patient was going on favorably in the sixth month when the case was reported. The bladder was at first washed out with a 2 per cent. boracic acid solution, and urotropin with *uva ursi* was given internally. The urine soon became almost clear and the patient was restored to comfort. There was congenital anus vestibularis, but the reporter gave no details of the condition.—*Centralblatt fuer Gynekologie*.

"A Fair Holiday Drinker!"

The reformers of the present are not students of social history. They assume that the drinking habits of the nation are on the increase and need Draconic checks, but they abstain from reading such literature as would convince them that, as a whole, England is infinitely more sober than at the beginning of the nineteenth century. There is something staggering in this account, for instance, of one of Byron's "nights out." Scrope Davies, Byron's friend, described him as a "fair holiday drinker" only, a phrase implying that he was not in any sense a toper.

On April 9th, 1814, Byron writes to Moore with evident self-satisfaction: "I have also been drinking, and on one occasion, with three other friends, at the Cocoa Tree, from six till four, yea, unto five in the matin. We clareted and champagned till two, then supped, and finished with a kind of regency punch composed of madeira, brandy, and green tea, no real water being admitted therein. There was a night for you!" Byron was a six-bottle man in the sense that six bottles of claret, besides champagne, would be drunk in a night's sitting by himself and another "holiday drinker."

At the age of 26 the poet found himself unaffected by these wines, which were doubtless pure, but he indulged in severe physical exercise to counteract any evil effects that they might have upon him.

Besides this, he would live for days on biscuits and soda-water, drinking the latter copiously. "His stomach," says Mr. Street in "The Ghosts of Piccadilly," "was born out of due time. Were he living in our day the apostles of new diets would have found in him their most attentive listener, their most enthusiastic practitioner." His dietetic eccentricities apart, Lord Byron is certainly typical of the drinking habits of the age of the dandies, an age which appears to us incredible, though less than a century has elapsed.—*The London Medical Lancet*.

Guaiacol Ointment for Mumps.

Ragorzi, in the *Bull. general de therapeutique*, advises the following:

R Guaiacol, part j.

Petrolatum,

Wool fat, aa parts x.

M. Sig. To be applied night and morning. The parts to be covered with a gutta percha sheet and a bandage.

Whooping Cough.

R Powd. musk, gr. ij-ijj.

Sodium bicarbonate, gr. v-vj.

M, Sig. Make into six packets and give one packet every two or three hours. Also:

R Creosote, gr. iv.

Sulphonal, gr. iij.

Syr. of tolu, 3 v.

M. Sig. Teaspoonful every hour.—*Le Progress Medicate*.

Richmond, Va., Academy of Medicine and Surgery.

At a meeting of this academy which was held on Tuesday, June 9th, Dr. C. M. Hazen read a paper on Electro-therapeutics, and papers on Cataphoresis were read by Dr. M. W. Peyser and Dr. F. K. T. Warwick.

The Millwheel.

At the dinner of the Edinburgh branch of the British Medical Association Dr. Charles Kennedy delighted the company with the following original song:

Tune—The Millwheel.

My opsonic index is negative,

I greatly fear I must die,

I often require a restorative

Of Scotch or Irish or rye;

My leucocytes are not digestive

Of staphylococci.

I've a boil no bigger than half a crown,

Though it feels as big as a score,

It makes me sit up when I try to sit down,

It is so devilish sore;

It's hotter than hell, and I've tried to drown,

My sorrows in nips galore.
 A bacteriologist came one day
 With sterilized lancet and all,
 He pricked it, and he carried away
 Some matter from that boil;
 A little matter, I heard him say,
 To grow on another soil.
 He planted it in a jelly dish,
 It flourished under his eye;
 Said he, when I asked him, "What is this?"
 "They're staphylococci!
 Yes, yes," he murmured, "What more can
 one wish
 Than staphylococci!"
 My germs, in strange serum, with nicely
 washed leucocytes
 He now incubated,
 And with oil immerson lens brought into
 view
 The fact that each polymorph fed
 On three or four cocci, and so one drew
 An index opsonic, he said.
 Then serum from me, for his leucos he
 asked,
 A meal of my germs to prepare;
 But they smiled at him, as in sunshine they
 basked,
 For not one opsonin was there!
 The cocci smiled blandly as polymorphs
 passed
 With stolid, amœboid stare!
 With the ghost of a chuckle, he gazed on
 the sight,
 Then took up a Pravaz syringe
 To dose me with cocci cream cooked a la
 Wright,
 And told me my welfare would hinge
 On whether my leucocytes still took fright
 At cocci of golden tinge.

My wretched opsonius will not revive!
 No matter how often we try;
 The boil is much better, but can I survive
 If the man with the cocci reply,
 "You can only get well, if your leucocytes
 thrive
 On staphylococci!"
 And now, I could do with a drop of Scotch,
 I like it much better than hy-
 Podermic injections of coccal hotch potch,
 And fain with my boil would I fly
 To regions obscure, where there's no one
 to tort-
 U're me with pickled cocci.

—Through the *Scottish Medical and Surgical
 Journal*, March, 1908.

New Subscribers for June.

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 N. C.

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 Dr. J. G. Hood, Kings Mountain, N. C.
 Dr. J. W. Wilcox, Carthage, N. C.
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Therapeutic Uses of Normal Serum.—

Hart, in The London Medical Lancet, says that he has successfully used it in a case of anæmia, a second, of tuberculous hæmoptysis, a third, of probable gastric ulcer without hæmorrhage in a chlorotic young woman, and a fourth of duodenal ulcer with hæmorrhage. The author states that oral administration fulfills all indication, and that subcutaneous or intravenous injections are unnecessary. In the above various conditions it is not impossible that there is a common basis of autolysis, characterized by destruction of epithelial, endothelial, hæmic, or other cells, and that such autolysis can be inhibited by normal serum. Many interesting questions arise in connection with normal serum therapy. For instance, what share have the normal constituents of serum in the results obtained by the use of serums such as the anti-diphtheritic and the polyvalents which are now attributed entirely to the action of abnormally produced bodies? Although the author is optimistic as to the effects of normal serum therapy in various conditions, he says our knowledge of its action is so slight that caution must be exercised in its use, and it is desirable that methods of testing and standardizing the serum with regard to its anti-autolytic, anti-hæmorrhagic, and other properties should be employed in the future. It is also important that serum should be used from a horse that has been repeatedly bled, as its activity seems to be thereby enhanced.

Bier's Venous Stasis in Acute Gout.---

Alkan in the London Practitioner recommends the use of Bier's stasis in the treatment of gout in the acute stage, in view of the fact that blood-serum is the best solvent of uric acid. He reports some successful results, and advises that with the hyperemia should be associated alternately hot and cold applications locally, the con-

stricting band being removed at the end of two or three hours. Thereafter he keeps the limb elevated, applying cold compresses for two hours, and then hot fomentations. This treatment quickly puts an end to the attack.

Tertiary Syphilitic Ulceration, with

Treatment.—Meachen in the Hospital Lancet, London, treated a gardener, aged thirty-nine, who had a peculiar ulceration of the scrotum and adjacent part of the perineum. When the author first saw him three weeks before the integument over the lower part of the penile urethra, but there were no lesions elsewhere, except a shallow ulcer on the under surface of the tongue. The primary infection occurred in Cape Town nine years before, and he was treated for only three months. He attended the London Hospital eighteen months before, with a few pustular lesions upon the legs.

He gave him iodipin (10 per cent.) in dram doses, three times a day, in an emulsion, and says that he really thinks that this remedy has produced a more favorable impression in the short time that he has had it than would have been the case with potassium iodide. At any rate, iodipin is a most useful one in causing rapid absorption of tertiary specific lesions, and it has the marked advantage of producing no symptoms of iodism.

The Passage of Medicinal Agents Into Mothers' Milk.—

Bucura (Zeitschrift f. exper. Pathol. u. Therap.) says that the transference of medicinal substances taken by the mother into her milk and the possible interference with the welfare of the child is not yet sufficiently studied. Only certain medicaments, such as potassium, iodide, sodium salicylate, ether, antipyrin, mercury as rectal suppositories, have been positively shown to pass into the milk. Furthermore, positive results in regard to atropin, morphine, arsenic, lead, zinc, copper and bismuth are based upon animal experimentation. He administered 40 different drugs to nursing mothers, whose milk was then tested as to the presence of the respective medicinal agents. It was found that, contrary to the general assumption, the customary laxatives, mineral salts, etc., do not pass into the milk. A peculiar behavior is shown by mercury. Calomel administered internally does pass into the milk, whereas no Hg could be demonstrated in the milk after mercury inunctions and injections. Substances which positively pass into the milk besides the above-mentioned drugs are aspirin, arsenic and bromides, probably also urotropin. It remains to be seen whether or not the administration of larger doses

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will result in transference into the milk in the case of certain other medicinal agents which yielded negative findings.

The "Scarlet Fever Heart."—Pospischill, in The Edinburgh Medical Journal, contributes a paper dealing largely with the varying symptomatology of different epidemics of this fever, but particularly with a curious condition of the heart which at times occurs, and which is so characteristic as to be of diagnostic importance. The author's attention was first drawn to it in 1903, when four children of one family were all admitted simultaneously to his ward suffering from commencing scarlet fever, and all had in addition signs of endocarditis—cardiac enlargement, arrhythmia, and apical systolic murmur. The writer supposed that this was a case of family proclivity to cardiac disease, and the diagnosis of endocarditis was confirmed by the persistence of the bruits in three of the children, and of the arrhythmia in the fourth, throughout their residence in hospital. He was soon, however, disabused of the idea that the endocarditis was a family peculiarity by the number of cases during the same epidemic in which he detected what was to him a novel cardiac lesion. The cases cropped up at short intervals for seven months, and then suddenly stopped. Despite careful watch, no further cases of cardiac disease at the onset of scarlatina have been discovered between then and now, until quite recently they have again begun to appear. Clinically there is often found a blowing apical or pulmonary systolic bruit, an accentuated pulmonary second sound, and arrhythmia. What is more characteristic, however, is a reduplication of the first sound with a rough grating murmur, loudest near the third costal cartilage, and audible over the whole sternum; in well-marked cases it is the same as what is heard in pericarditis. These signs generally occur at the onset of the illness, and usually last but a few days; they are very apt to recur during any febrile complication of the convalescence. They seldom develop for the first time in the later stages of scarlet fever. The benign course and absence of effusion led Pospischill to doubt whether all these cases were really pericarditis; in two out of his three autopsies the pericardium was smooth; in the third there was inflammation. He apparently regards the condition as a myocarditis extending to the pericardial surface (*bis ans Perikard heranreichende Erkrankung*). The most striking clinical feature is the rough murmur and the split first sound; a systolic bruit may precede or be superadded to these. He gives examples of cases in which the diag-

nosis was founded on these signs. He was called to see a boy who, beyond appearing ill and showing sign of *scharlach-herz*, had no other symptoms. Scarlet fever was diagnosed, and subsequently the patient desquamated. In other cases he found the same signs on patients in chickenpox and diphtheria wards, and the discovery was generally the herald of an outbreak of scarlet fever among the neighboring patients. He says that among others Litten and Ashby have recorded such cases, without, however, realizing their full significance.

Remarks Upon Excision of the Body of the Scapula.—Rowlands in the British Medical Journal concludes:

1. That for suitable cases excision of the body of the scapula, with preservation of the processes and glenoid socket, is a much better operation than excision of the whole bone, because it leaves a limb far more perfect from the functional and the artistic points of view.

2. That the operation is especially suitable for innocent growths, which fortunately and frequently leave the processes and the shoulder joint unaffected.

3. That it may be adopted in preference to complete excision of the scapula for some slow-growing malignant growths without increasing the immediate risk of death, and probably without increasing the danger of either local or general recurrence.

4. That it may be occasionally suitable for inflammatory diseases of the scapula when the shoulder-joint is unaffected.

5. That it is wise to tie the three main vessels as early as early as possible in the operation, and that this can be easily done through a suitably arranged posterior T-shaped incision.

6. That the success of the operation largely depends upon careful asepsis, the sewing of some of the divided muscles together, and the early adoption of systematic active and passive movements of the shoulder.

An Address on Gastro-Enterostomy and After.—Moynihan in the British Medical Journal, concludes as follows:

1. Gastroenterostomy is a short-circuiting operation, and, like all such procedures, acts best when a gross mechanical obstruction exists in the normal path of the intestinal contents.

2. Experimental work shows that when the pylorus is normal, and there is no impediment to the passage of food through it, the opening made in the operation of gastroenterostomy does not allow of the escape of any of the gastric contents into the intestine.

3. The operation, therefore, gives the best results in cases where there is organic

disease in the prepyloric or pyloric regions of the stomach or duodenum, or when performed on the cardiac side of a stenosis in the body of the stomach.

4. When an ulcer is found on the lesser curvature towards the cardiac it should be excised if possible; gastro-enterostomy is not necessary, and if performed is either almost useless or entirely harmful.

5. When there is a suspicion of malignancy in an ulcer or ulcers in the pyloric region, Rodman's operation should be performed.

3. Under no circumstances, and in compliance with no persuasion however insistent, is gastro-enterostomy to be done in the absence of demonstrable organ disease.

7. Regurgitant vomiting, formerly the most troublesome of all complications, is dependent upon faults in the operation which result in some mechanical obstruction to the intestine. The faults are chiefly dependent upon the presence of a "loop" in the jejunum, but may also be caused by a twist in the intestine around its longitudinal axis at the time of its application to the stomach.

8. The posterior no-loop operation with the vertical application of the bowel to the stomach is the best procedure.

Micro-Organism Isolated from Acute Rheumatism.—Walker, in the British Medical Journal, states that as a result of his researches, carried on in connection with Beaton, he has isolated a micro-organism for rheumatic cases, which he calls the *Micrococcus rheumaticus*. The organism which they isolated was capable, he claims, of producing in animals the morbid lesions of acute rheumatism. Four points of apparent difference between this organism and other streptococci were, first, a greenish-brown discoloration produced in a blood agar culture, apparently due to a reduction of hemoglobin to hemochromogen; second, the growth obtained on using Marmorek's test; third, the faculty of growing on very alkaline media, and fourth, the production of considerable quantities of acid and its rapid hemolytic action on red blood corpuscles. While he does not consider the case in favor of the *Micrococcus* as proved, he sees no reason for abandoning positive results in favor of negative evidence.

Acute Enteric Intussusception with Apparent Reduction by Irrigation; Abdominal Section and Fatal Result.—William Templeton, in the British Medical Journal, reports this interesting case: A boy three years old had an acute enteric intussusception. There was slight general swelling of the abdomen and tympanites, with a quite definite elongated swelling, not

at all sausage-shaped, about two inches long and one inch broad, lying obliquely downward and inward in the left iliac region, dull on percussion. Rectal examination showed nothing abnormal. A pint of warm water was gradually injected into the bowel, which was followed by a disappearance of the tumor. On the day following the abdomen was found to be again distended and tympanitic; and the tumor was again present as before; it was hard and dull on percussion, but not tender. A large enema of warm water was injected and the tumor again disappeared completely. Three hours later it reappeared. While the child was being prepared for abdominal section, and while he was under chloroform, an enema was again injected, with a complete disappearance of the tumor. In a few moments it reappeared. At operation an invagination of the bowel was found, about two inches or so in length. This was easily reduced. The child recovered well from the operation, and passed a large, distinctly fecal motion; but 36 hours after the operation he became collapsed and died. This case is interesting in relation to the question whether cases of acute intussusception should be operated upon as soon as definite diagnosis is established, or whether irrigation or inflation of the bowel should first be tried. In the enteric variety, which forms about 30 per cent. of all cases, irrigation cannot possibly be of any use, and may, as in this case, cause delay in resorting to abdominal section.

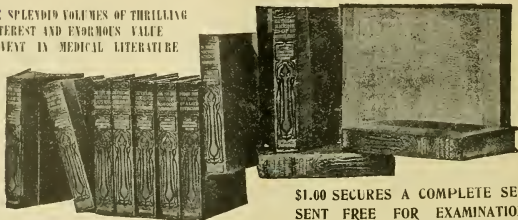
Family Epidemic of Rubella.—Aubert (Lyon. Med.) reports an epidemic of rubella occurring in a family, the branches of which were widely separated from one another. This disease is somewhat rare in France. A single case infected five others, two of which went to different localities in the city while three remained in the country. The two who went to the city infected five others. There were ten cases in all, of whom four were adults. The disease was characterized by a low fever, absence of nasal catarrh and cough, presence of slight sore throats and enlargement of the cervical glands. The prodromal period was very short and the incubation from fifteen to twenty days. The adults suffered most severely, the children being slightly affected. The eruption is difficult to differentiate from that of measles. It is uniformly distributed, of a rose color, in raised points that are not arranged in crescents and are separated by clear areas. The chief diagnostic points are slight fever, short prodromal period and absence of catarrh.

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The Charlotte Medical Journal.

VOL. LVIII

CHARLOTTE, N. C., AUGUST, 1908.

No. 2

The Influence of the General Condition of the Patient on the Result of a Surgical Operation.[†]

By Stuart McGuire, M. D., Richmond, Virginia.

There are some operations, such as for the relief of a strangulated hernia or the removal of a gangrenous appendix, which are so urgently demanded for the immediate purpose of saving life, that the surgeon has no choice and nothing is considered but the one great need. These are imperative operations, and must be done regardless of risk. There are other operations, such as for the correction of deformities or the relief of some chronic ailment, which, however desirable, are not essential to the life of the patient. These are elective operations, and should not be undertaken without carefully considering the danger to be incurred on the one hand, and the benefit to be hoped for on the other.

In estimating the risk of an operation, the modern surgeon is too apt to base his opinion on the statistics contained in textbooks and encyclopedias. Figures are proverbially unreliable. Thus, for instance, the statistics of old operations such as ligations and amputations, are usually a record of pre-antiseptic surgery and do not represent the work of today. While the statistics of more recent operations such as thyroidectomy or gastro-enterostomy, are usually the record of master-workmen like Kocher and Mayo, and do not represent the danger of these operations in the hands of the average surgeon.

In deciding whether or not to advise a patient to undergo an elective operation, the following factors should be considered:

First, the gravity of the operation and the relief to be expected from its successful issue. There is no operation devoid of risk, and some are attended by great danger. Patients are occasionally unreasonable and insist on having a serious operation done to rid themselves of a fancied ailment. Unless the operation is safe and there is a reasonable assurance of the patient being materially benefited, he should not be subjected to a surgical ordeal.

Second, the ability and experience of the operator. No courageous doctor should fail to undertake an operation if the patient's condition is urgent, if delay means death, and if no more experienced surgeon is

available. Competency is a relative term, and the man on the ground should endeavor to afford relief or else he fails to measure up to his responsibility. It is different, however, when the disease is a chronic one, and the patient could safely be moved to a hospital, or await the arrival of a surgeon from a neighboring city. A patient is entitled to the best possible prospect for prolonged life or restored health that his resources permit. No conscientious surgeon should undertake an operation without asking himself whether he has the skill to do the work satisfactorily. In many cases he can honestly answer the question in the affirmative. In some cases, while there may be a doubt in his mind, he is justified in operating by the fact that the patient has not the physical strength to bear transportation or the financial means to bring a surgeon from a distance. In other cases, however, the surgeon must recognize his inferiority to men in the profession who devote their lives to special lines of work, and when the patient has the physical and pecuniary power to secure their services, it is his duty to place the case in their hands. This obligation is so universally recognized that the sacrifice it entails is not often appreciated by the laity, and sometimes not by the class of the profession which is benefited.

Third, the general condition of the patient, or the consideration of the personal factors in the individual case which influence the result of the operation. It is often said—sometimes seriously, sometimes satirically, and sometimes truly—that the operation was a success, but the patient died. In such a case, the indications for the operation may have been plain, but the contra-indications were either overlooked or disregarded. The operation may have completely corrected the condition from which the patient suffered, it may have been perfect in its technique and brilliant in its execution, but the patient may have lost his life from some complication which could have been foreseen by more careful preliminary investigation. Many surgeons have had uncontrollable hemorrhage to follow the removal of a small tumor, owing to the patient having hemophilia, or have had gangrene develop in a wound, owing to the existence of diabetes, or have had suppression of urine to follow, owing to the presence of nephritis.

Sir James Paget, in one of his classical lectures, says:

[†]Paper read at meeting of the North Carolina Medical Association at Winston-Salem, June 16th, 1908.

"Never decide upon an operation even for a trivial kind, without first examining the patient as to the risk of his life. You should examine him with at least as much care as you would for life insurance. It is surely at least as important that a man should not die or suffer serious damage after an operation as that his life should be safely insured for a few hundred pounds."

Two separate and independent examinations should be made of every surgical patient—the first for the purpose of diagnosis and the determination of the condition to be corrected; and the second for the purpose of prognosis, or the determination of the safety of the operation. In forming an estimate of the latter, many factors have to be taken into consideration, such as age, sex, race, habits of life, constitutional diseases and visceral disorders. In discussing these under separate headings, much use has been made of an article by Sir Frederick Treves, who acknowledges a similar indebtedness to Sir James Paget.

Age.—As a general proposition it may be stated that patients at either extreme of life are poor subjects for surgery.

Children under five years of age take anesthetics badly, often suffer severe shock from only moderate loss of blood, and are difficult to manage during convalescence. They are liable to gastro-intestinal disturbances, especially in hot weather, and frequently are the victims of chicken-pox, measles or other infectious diseases to which they are susceptible. On the other hand, owing to the energetic cell activity of the period of growth, their tissues heal rapidly and are not prone to supuration. In operating on children, avoid, if possible, the period of first dentition, as they are liable to digestive disturbances and to convulsions, and apt to develop a high temperature under little provocation. Use chloroform as an anesthetic, and avoid the infliction of long-continued pain. Especial care should be taken to prevent loss of blood or body heat. Dressings should be carefully watched and changed as often as soiled. Usually no attempt should be made to keep the child in bed, but, from the first, it should be permitted to lie on the mother's lap or be carried about in her arms.

The period from the fifth to the fifteenth year is the golden age of surgery. Here the mortality is least, and the results best from operations of almost every kind. This is due to the fact that metabolic processes are active and resistance to infection vigorous; that the various organs of the body are normal and perform their functions satisfactorily; that the nervous system is stable and uninfluenced by regrets for the past or fears for the future; and finally, that the

reason and will have developed sufficiently for the surgeon to secure the acquiescence and co-operation of the patient.

Between the twentieth and fortieth years the mortality of operations greatly increases. This is due to sexual development, attended by the possibility of excesses, abnormalities and diseases; also to the cares and responsibilities of maturity, often leading to neurasthenia from excessive work and worry. And finally, there may be superadded the injurious results of addiction to tobacco, whiskey or opium.

After forty the mortality from operations is nearly three times greater than in patients under twenty. As a rule, old people are severely shocked by loss of blood or body heat; their wounds heal slowly, and their tissues have little power to resist infection. They are headstrong and rebellious, and intolerant to confinement. Their organs of assimilation and excretion are impaired, and their stomachs and kidneys liable to break down. Taken all in all, old age is a greater bar to surgery than any other complication, unless it be chronic alcoholism. It must be remembered, however, that senility is not measured in years. Surgically speaking, a man is as old as his arteries. In impressing this point, Sir James Paget says:

"They that are fat and bloated, flabby of texture, torpid, wheezy and incapable of exercise, looking older than their years, are very bad.

They that are fat, florid and plethoric, firm skinned and with good muscular power, clear headed and willing to work like younger men, are not, indeed, good subjects for operations, but they are scarcely bad.

The old people that are thin and dry and tough, clear voiced and bright eyed, with good stomachs and strong wills, muscular and active, are not bad: they bear all but the largest operations very well."

The brilliant results of Young and others in operating on old men for prostatic enlargement, show that modern surgery, with its short period of anesthesia, diminished loss of blood, freedom from infection, and provision for adequate drainage, has made it safe to do operations on the aged which, only a short time ago, would have been unjustifiable.

Sex.—Other things being equal, women bear operations better than men. This is due to the fact that they are designed for maternity and are naturally endowed with more passive endurance; that they are more confiding and trustful, and place greater confidence in the assurances of the surgeon; that they are more tolerant to confinement to bed, because they are not accustomed to

active out-door life; and finally, they are more temperate and regular in their lives, and not as frequently the victim of excesses in food and drink.

On the other hand, menstruation, pregnancy, lactation and the phenomena of the menopause give to the sex the possibility of complications to which the male is not subject. As a rule, operations should be avoided during menstruation, as the period is frequently attended with nervous and digestive disturbances. The time of election, especially in gynecological work, is the two weeks midway between the completion of one period and beginning of the next. In emergencies, however, an operation may be done during menstruation without misgivings, as usually no ill effects result.

It is also undesirable to do an operation during pregnancy, as it entails the possibility of miscarriage. The danger is more theoretical than real, however, as hundreds of abdominal sections have been done on pregnant women, for appendicitis or other abdominal diseases, without interference with gestation.

It is also inadvisable to operate during lactation, because the woman's strength and resistance are below par, and if she continues to nurse the child, she will have an undue tax upon her, while if she ceases to do so, there will be the danger of trouble with her breast.

Race.—The influence of race on the result of an operation is a question of interest, but not of great practical value. It is stated that a Chinaman makes the best patient on earth. In America, especially in the Southern States, there is good opportunity to contrast the respective resistance of the Caucasian and the Negro. Surgeons of large experience in operating on both races are practically unanimous in the opinion that the black man is a better subject than the white man. This does not apply to the mulatto, for he follows the rule of the mongrel, and has the vices of both parents and the virtues of neither. It is obvious even in the life of an individual that the pure negro is losing the immunity formerly enjoyed to certain diseases, and is developing predispositions which render him a less favorable subject for operation. Before the Civil War, insanity was unknown in the race; tuberculosis was not common; and venereal diseases of rare occurrence. With civilization, education and syphilization, he is now the victim of various nervous disorders; with unhygienic surroundings and scant clothing, he is a frequent victim of the Great White Plague; and with improper food, eaten at irregular intervals, his digestion has become impaired, and he is suffering more and more frequently from

gall stones, appendicitis and diseases of the kidneys. The day will come when the degeneration of the whole race will have reached a point to make it an accepted fact that they are poor subjects for surgical work.

Vigor and Weakness.—Paradoxical as it may sound, the strong, robust man frequently does not make as good a surgical patient as one who is feeble and wasted by disease. He may have huge limbs and mighty strength; he may never have had an illness in his life, and boast of the constitution of an ox, but he is a poor subject for the surgeon's knife. He is accustomed to fresh air and an active life; his blood vessels are full and oxygenation of the tissues is rapid. His food has been large in quantity and gross in quality. When misfortune overtakes him, there is no time to accommodate himself to new conditions, and the whole habit of his life is suddenly changed. To this is added the shock of his accident, the horror of an operation, and the dread of the future. Just the contrary is true with the chronic invalid, who has been acclimated to bed life by long weeks of invalidism, whose circulation, respiration and digestion have become adjusted to his condition, and who has been brought to view the approaching operation as a means of relief of pain and restoration to health. Of the two types described, the latter will be well first.

Obesity.—As a rule a fat patient is a bad patient. If the obesity is hereditary and the general health good, it is not as bad as when the fat is due to gluttony, indolence or beer-drinking. An obese patient is an elephant on your hands. He usually breathes with difficulty and cannot assume a recumbent position. It is hard to move him in bed, and difficult to prevent the formation of bed sores. The skin is usually thin from pressure, and its edges difficult to approximate. The subcutaneous fat has little vitality and readily breaks down and liquefies. Infection once taking place, pus burrows far and wide, and is drained with great difficulty. Sometimes such patients die suddenly from fat embolism: again they become exhausted and prove an easy victim to intercurrent diseases. If recovery takes place, convalescence is always tedious and prolonged.

Alcoholism.—The most unpromising patient who ever comes to a surgeon is the chronic alcoholic. Constant drinkers who are never drunk, and yet who are never sober, are worse subjects than those who get on periodic sprees. The gravity of the risk in the individual case will depend on the length of time the individual has taken stimulant; the average amount consumed

daily; the presence or absence of tremor of the hand or alteration of the knee-jerk; the existence of gastritis, as indicated by anorexia, nausea or vomiting; and the condition of the liver, kidneys, heart and blood vessels. No operation except the most imperative should be done on the alcoholic, because of the danger of the administration of the anesthetic, because of the depraved condition of the tissues and consequent lack of resistance to infection, because of the liability of the kidneys to stall or the heart to run away, and because of the danger of the development of wild and uncontrollable delirium. When an operation is unavoidable, but not immediately necessary, the patient should be prepared for it by cutting down or withdrawing the stimulant. When an immediate operation is necessary, it is better to continue the alcohol until the period of greatest danger is past.

Affections of the Nervous System.—Hysterical patients usually give a great deal of trouble before the operation, but do very well after the ordeal is over. A nervous woman who wishes to tell of the unfortunate surgical experience of her friends, who desires to discuss every step and detail of her own operation and tell how she wishes her case managed, and who is possessed of exaggerated fears as to the complications which may develop or the ultimate result which may follow, usually, after the operation, becomes a model patient. Her imagination enters upon fresh fields and she becomes hopeful and courageous, and at once begins to plan a new life of activity.

The neurasthenic, however, is a different proposition, and woe betide the incautious surgeon who operates on one. Occasionally neurasthenia may be due to chronic appendicitis, uterine displacement, or some other cause which can be corrected, and the patient cured. But in a large majority of cases the neurasthenia is due to a disturbance of the general body nutrition, and no operation will prove of benefit. The victim of neurasthenia wears out the patience of his family and friends, and in order to secure a sympathetic listener, and in order to demonstrate to the community the serious nature of his disease, he goes from surgeon to surgeon and from hospital to hospital, offering himself as a bloody sacrifice to his curious form of egotism, and glorying in his martyrdom. Surgery does this class of patients no good, but simply deepens, rather than relieves, the neurasthenia.

The insane are usually good subjects for surgical operation. The regular life of an asylum is conducive to good health, and the absence of mental anxiety on the part of the patient is a favorable factor. Mayo,

who has done a great deal of work on this class of cases, states that they are entitled to just the same surgical treatment as the sane—no more, no less. In other words, insane people should be operated on to relieve them of hernia, gall stones and abdominal tumors, but hernia, gall stones and abdominal tumors should not be operated on to cure the patient of insanity.

Constitutional Diseases.

Rickets is a condition of bony malnutrition. If the general health is good, wounds heal as well in rickety subjects as in other cases.

Syphilis does not usually increase the risk of a surgical operation. Wounds made during the full bloom and blossom of the secondary stage heal kindly, and operations done on tertiary lesions usually do well. The danger in operating in the early stages of syphilis is rather one to the surgeon than to the patient, as the blood is infectious.

Gout has no effect upon the result of an operation, unless it has existed sufficiently long to produce cardiac or renal changes. It is, of course, not wise to operate during an acute attack of the disease, and it must also be remembered that an operation sometimes precipitates an attack in a person predisposed to the disease.

Hemophilia contraindicates a surgical operation, unless urgent and required to save life. Fortunately the subjects of hemophilia do not always bleed. A case is in mind where a man was brought to the hospital with gangrenous appendicitis, who gave a history of having suffered repeatedly from almost fatal hemorrhage after trivial injuries. After consultation, a section was determined on, and was performed with less than the usual loss of blood.

Malaria and an injury or operation have a reciprocal relation one with the other. Malaria may cause pain, hemorrhage or inflammatory changes at the site of injury, which assume an intermittent type and yield to administration of quinine. Again, an injury or operation inflicted on a person the victim of malaria may markedly aggravate the disease, or induce a fresh onset of ague; or again, it will make active symptoms in a person who is not known to be infected.

Diabetes is an almost positive contraindication to an operation, as the tissues of a diabetic patient possess little power of regeneration, and have so little resistance to infection that inflammation, suppuration and gangrene are almost certain to develop. Surgery on diabetics should only be done when most imperatively demanded, as often when the sugar in the urine has been decreased to an insignificant amount by weeks

of dietetic treatment, it will reappear in large quantities immediately after the operation, and the patient die in diabetic coma.

Visceral Disorders.

Cardiac and Valvular Diseases.—Valvular disease of the heart is believed by the laity and most of the profession, to add greatly to the risk of the anesthetic and to the danger of death from complications following the operation. This does not seem substantiated by facts, as but a small proportion of the patients who die from chloroform or ether are found to have been the victim of organic heart disease, and as far as convalescence after the operation goes, patients with heart trouble are usually markedly improved by the enforced rest and confinement in bed. A dilated or fatty heart is much more to be feared than one with valvular lesion, especially if there be adequate compensation.

Atheroma of the Arteries was formerly thought to predispose to secondary hemorrhage, but in modern practice this complication is rarely, if ever, seen. The complication to be most dreaded from disease of the arteries is gangrene due to lack of nutrition of the tissues to which they are distributed.

Renal Diseases.—It was formerly thought that the presence of albumen or casts in the urine indicated grave organic change in the kidney, and was a bar to surgery. This may have been the case with the crude tests of the older pathologists, but it is certainly not so today, for the modern laboratory man finds albumen and casts in practically every specimen submitted to him. Dr. Osler has emphasized this in a recent article entitled, "The Advantages of Having a few Casts in the Urine after a Man Reaches Sixty Years of Age." Certain forms of nephritis, however, add greatly to the danger of an operation, and all surgeons occasionally lose patients from suppression of urine, followed by uremic convulsions. No operation of election should be done on a patient suffering with advanced Bright's disease, and when the urgency of the case is such that an operation has to be done, the patient should be carefully prepared by dietetic and eliminative treatment before the operation, and the kidneys kept active afterwards by the use of spartein and the administration of large quantities of water by mouth or rectum.

Respiratory Tract.—Bronchitis, pneumonia and phthisis pulmonalis are serious bars to surgery, inasmuch as they make the administration of the anesthetic difficult and dangerous, and complicate the after-treatment by coughing, embarrassed breathing and imperfect oxygenation. In acute in-

flammation of the lungs, operations should be postponed, and in chronic trouble, they should not be done except to meet most urgent indications.

Alimentary Tract.—Gastric dyspepsia, intestinal indigestion, diarrhea and constipation are all conditions to be corrected prior to an operation. The prognosis is bad when to the toxins of disease is added the poison produced by putrefaction of gastric and intestinal contents. In correcting the conditions named, food should be sterilized, the mouth should be repeatedly disinfected, the stomach should be washed out, and intestinal antiseptics, together with purgatives, should be judiciously administered.

In diseases of the liver, especially when the patient is jaundiced, the danger of hemorrhage should be determined by testing the coagulability of the blood, and, except in cases of greatest urgency, operations should be postponed until the cholemia subsides or until, by the administration of calcium chloride or other drug, the danger of uncontrollable bleeding be removed.

Diseases of the Blood.

Anemia, or a deficiency of either hemoglobin or red blood cells, is often a contra-indication to an operation. Mikulicz states that a hemoglobin percentage below thirty, or a red blood count below 3,500,000, should postpone operative interference until the blood is enriched by medical treatment. While this is a safe rule to follow, it has its exceptions. The lives of two women have recently been saved, whose blood findings were below this minimum owing to profuse and uncontrollable uterine hemorrhage, by the operation of hysterectomy.

Leucocytosis, or increase in the polymorphonuclear leucocytes, especially when progressive, indicates advancing suppuration and demands early operation.

Leucocythemia, or an excess of mononuclear leucocytes, contraindicates all operations, as the patients invariably die after removal of the spleen, and stand in great peril after more trivial procedures from hemorrhage, infection and other complications.

Some Observations on Pellagra in this Country with Special Reference to Pellagrous Insanity.†

By John McCampbell, M. D. Morganton, N. C.

Pellagrous Insanity, as the name implies, is so closely associated with, and dependent upon, a general systemic disease that its consideration separate and apart would be

†Read at the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C.

difficult and hardly profitable, it being in reality only one of the late manifestations of the malady known as Pellagra, which has been comprehensively defined by Van Harlingen as "a complex disease characterized by three classes of symptoms.

1st. A squamous erythema confined to those portions of the skin which are exposed to the action of heat and light.

2nd. A chronic inflammatory condition of the digestive passages shown chiefly by obstinate diarrhea.

3rd. A more or less severe lesion of the nervous system leading at times to mental alienation and paralysis.

These various symptoms are at first insignificant and in a certain way periodic. They begin or recur in spring and diminish or disappear in winter. Later, they become persistent, more and more marked, and finally terminate fatally."

Pellagra has been known to exist in Italy, Spain, and adjacent countries for more than a century and a half and was scientifically investigated in Italy as far back as the year 1771, but, until quite recently, there has been very little said in this country on the subject. In fact, the existence of the disease has been denied by some of the most eminent medical writers of recent years, the subject being dismissed with brief mention and the statement that it is a disease confined to certain European countries. It is true that cases simulating pellagra were reported in the early sixties by Dr. Gray, of New York, and Dr. DeWolfe, of Nova Scotia, but the genuineness of these was questioned at the time and the disease either disappeared or was over-looked, (the former most likely) until attention was again called to it by the publication within the past year of the observations of Drs. Searcy, of Alabama, Babcock, of South Carolina, Wood, of this State, and possibly others, though some doubt apparently exists in the minds of some of these observers, as is evidenced by the fact that Dr. Babcock presents his able, and to my mind, convincing paper in the form of a query.

My own experience leads me to believe that we now have in this country, probably of recent development, a grave and usually fatal disease identical with the pellagra of Southern Europe and which may, under favorable conditions, gain the proportions of an epidemic. During the past four years, I have, from time to time, encountered mental cases presenting certain definite and rather uniform manifestations and associated with a peculiar skin eruption which I was unable to fit into any recognized classification, yet I realized that I was dealing with a distinct entity, and it was not until the earlier of the last referred to papers came

into my hands that I was convinced that the disease in question was pellagra and the mental disturbance present constituted pellagrous insanity pure and simple. In support of this belief, I wish to recount the chief etiologic and symptomatic features as observed in twelve of these cases, with special reference to their mental aspect, since all of them were so far advanced in the disease as to necessitate their commitment to a Hospital for the insane.

The theory generally, if not universally, accepted, is that pellagra is in some way associated with the ingestion of Indian corn which is diseased, harvested immature, or in some way damaged and consequently containing a toxic substance, the exact nature of which has never as yet been very clearly defined. Ballardini considers it a parasitic growth on mouldy or musty maize, while Lombroso suggests that it is due to the occurrence of a fatty oil and an extractive substance, the product of decomposition or bacterial action which are never present in sound corn. At any rate, the disease is more in the nature of a ptomaine poisoning than a direct bacterial infection. This would naturally be supposed since most of the corn and corn preparations which are used as food have been cooked and thereby subjected to a sterilizing temperature. It is of interest to note in this connection that I have recently had an opportunity to interview several native Italians of the peasant class, who had some knowledge of the disease, and they invariably assigned as the cause the eating of polenta three times a day, and they attached considerable importance to the fact that it was eaten three times a day. Polenta is nothing more than ordinary corn mush. I am unable to determine the exact character of diet previously used by any of my cases, but there is good reason to suppose that corn was extensively eaten and it will be conceded that this prime etiologic factor was present.

Locality within the State seems to have no particular influence, as the twelve cases were distributed impartially over the territory extending from Robeson to Madison counties. All of these cases were women, which fact is at variance with the common teaching, since the two sexes are supposed to be equally susceptible. The negative bearing of this circumstance is eliminated by the fact that at the time these observations were made, my service was confined to wards for women. In the epidemic occurring at Mt. Vernon, Alabama, and reported by Dr. Searcy, eighty out of eighty-eight affected were women. The average age was thirty-eight years. Nine out of the twelve cases ranged from thirty-eight to forty-five, which is of no special signifi-

cance, unless it be that the nervous instability consequent upon the approach of the climacteric in some way predisposes to the disease. Eight, or two-thirds of the twelve cases, showed first mental symptoms in either April, May, or June, and two others in July and August. Allowing for a slight delay in the occurrence of mental disturbance in these two cases, we have ten out of twelve occurring in conformity to the usual seasonal incidence of the disease, it being understood that most cases develop or recur in the spring and early summer months. There was a total absence of heredity in all but two cases, and in these it was remote—an insane uncle in one and an insane niece in another. Neither was there an instance of parental consanguinity.

Absence of these factors, which are important in the causation of most insanities, point to the exogenous character of the disease and renders it less likely that the ordinary insanities have been confounded with this series of cases. All, with two exceptions, were exceedingly poor and most of them bore evidences of having undergone extreme privation. These conditions, no doubt, contributed to the development of the disease both by the malnutrition consequent upon an insufficient diet, and also by the fact that poverty of that degree usually necessitates the use of corn to a greater extent than is customary with people in better circumstances.

All the cases under consideration having, before coming under observation, reached a condition of extreme mental alienation, it naturally follows that we are dealing with the latter stages of the disease, and data concerning the earlier symptoms are lacking. It appears from the histories given in the commitment papers that in a vast majority the mental symptoms were preceded by or associated with ill health, this period of ill health being in all probability nothing more than the lassitude, general debility and digestive disturbance common to the earlier stages of the disease. In fact, a run-down condition, debility, indigestion, general catarrhal condition of the intestinal tract and like troubles are specified in several of the cases.

The beginning of the psychic disturbance was usually marked by a period of anxiety and worry, undue importance was attached to trivial affairs, and misfortunes were apprehended. Occasionally unusual religious interest was manifested. This was followed by disturbance of perception and the development of hallucinations, usually auditory, though occasionally visual as well. Judgment was profoundly disturbed, giving rise to delusions, which were characteristic in that they were, with only one exception,

depressive and painful in nature, though they lacked the self-accusatory quality of the usual delusions of simple melancholia, being rather of fear and suspicion, or more specifically, one thought that she was to be burnt up, another, that she was burning in torment and her child recently dead was also in hell. Still others thought that poison was put into their food or that they were to be hurt or injured in some way.

At this stage, threats and attempts at suicide were rather frequent and occasionally homicidal tendencies were present. Two cases showed very decided emotional instability. As the disease progressed, memory became grossly defective and orientation as to time, place and persons was imperfect. Incoherence of speech was common and was usually of the most desultory variety. Neither distractibility nor true flight of ideas were observed at any time. There were instances of mutism, the patient appearing dazed and failing to respond to questions and orders of the simplest kind, due probably to clouding of consciousness and a failure to comprehend.

Motor restlessness and insomnia were present with a disposition, even when extreme weakness was present, to get out of bed, tangling and scattering the bed clothes about the room in a most aimless manner, and a kind of senseless resistance was made to efforts at examination. A total disregard for cleanliness soon appeared and all became extremely untidy in habits—this from mental habitude and indifference rather than viciousness. There was an early failure of appetite and frequently absolute refusal of food, (often due to delusion) necessitating forced feeding with nasal tube.

These mental symptoms without remission steadily grew more and more pronounced until a condition of complete amentia ensued and, coupled with the physical weakness present, was not unlike the so-called typhoid condition, and especially so, when the delirium assumed a muttering character. Co-existent with the mental condition described, there was invariably present an eczematous involvement of the skin, varying all the way from a thickened, roughened and pigmented condition with a tendency to fissure, to a typical exfoliative dermatitis. These skin changes were distinctive in that they were limited to exposed areas, the backs of the hands escaping in no instance, and in this location the milder cases strongly suggested sunburn. The involved surfaces were uniform and ended abruptly—usually at or just above the wrists. The line of demarcation was very distinct and corresponded closely to the limit of protection afforded by the sleeve or arm covering. The eruption occasionally appeared on the

face—especially at the angles of the mouth, and once upon the forehead, but was not observed on the feet.

There was a tendency toward pigmentation and scaliness over the bony prominences even where protected by the clothing and especially so where counter-pressure was exerted. This was most marked at the point of elbows and front of knees, though in these places it was never as severe as where exposed to the action of the sun's rays.

The nervous disturbance consisted in exaggeration of the deep reflexes, coarse intention tremors, ataxic and choreic movements of the extremities, especially the arms, and later this incoordination frequently involved speech, rendering it halting, slurring, and finally inarticulate.

The pupillary disturbances were slight, variable, and inconstant. As the end approached, there was a general spastic condition of the muscles with marked retraction of the neck and head, and a mere tap at almost any point on the body would excite a slight tetanic conclusive movement. Diarrhea was usually present, characterized by obstinacy and an exceedingly offensive and putrescent odor of the dejecta.

All twelve cases terminated fatally. The course of the disease was rather rapid. The average duration after the beginning of mental symptoms was three and one-half months. The average duration after admission to the hospital was forty-four days.

The foregoing mental symptom-complex, although somewhat contradictory, or at least, inharmonious, might be to some extent associated with any of the toxic or exhaustion psychoses, since many of the symptoms mentioned are common to most of these conditions, without regard to the particular morbid influence in operation, and it was only by the somatic disturbance invariably present, chief among which were the skin lesions, that differentiation was possible.

I am aware that the number of cases studied is rather small and the records from which the histories are taken too incomplete to altogether justify a dogmatic statement, yet I believe that sufficient has been said to show the close similarity of these cases to the descriptions of pellagra given in the classic writings on the subject.

And I would say further that this paper is not presented with a view to adding anything to the literature of the subject, but rather, in the hope that I may, in some measure, at least, aid in directing the attention of the profession generally to a danger which possibly threatens us, since an early recognition is all-important, for it is only by prophylactic measures that we can hope

to accomplish anything.

To show that this danger is not altogether imaginary, I will say that out of twenty deaths occurring among women in the State Hospital at Morganton during the past year, five, or twenty-five per cent., granting the correctness of diagnosis, were attributable to this disease, a number in excess of those assignable to any other one cause, tuberculosis included.

Pleurisy in Children.*

By J. R. McCracken, M. D., Waynesville, N. C.

In considering this subject, it is not my purpose to enter into a detailed description of all the different forms of pleurisy that are seen in childhood, as all the forms seen in the adult are seen also in the child, and as to the pathology of the disease there is no essential difference between pleurisy in adults and pleurisy in children, the principal difference being one of etiology.

According to Holt, dry pleurisy as an independent clinical disease has no existence in infancy or early childhood, being always secondary to affections of the lung, and some authors doubt if it ever occurs as a strictly primary disease. As in the adult most cases of pleurisy are secondary to diseases of the lung, and in infants this is perhaps true in 90 per cent. of all cases. It is occasionally seen complicating, or as the sequel of some of the acute infectious diseases, such as scarlet fever, measles, typhoid fever and influenza. In adults tuberculosis is perhaps the most important etiological factor, while in children, and especially before the seventh year, this is an exceedingly rare cause. This perhaps accounts, in a degree, for the fact that the seemingly primary cases occur so much more often in adults than in children, and may also account for the fact that the dry and serofibrous forms, the forms most often due to tuberculosis, are most frequently seen in the adult, while empyema, or the purulent form, is more frequent in the child. Among other causes of pleurisy might be mentioned necrosis of a rib and traumatism.

Since dry pleurisy is exceedingly rare, and pleurisy with serous effusion not at all frequent in children, we will pass at once to a consideration of empyema, the form most often seen in childhood and the most important form of pleurisy with which the physician has to deal. Perhaps 90 per cent. of these cases occur with, or follow, pneumonia, being a complication of that form known as pleuro-pneumonia. In my opinion this is as often overlooked, or unrecognized, as any serious affection of childhood,

*Read at the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C.

as so many physicians dismiss their pneumonia patients so shortly after they have passed the crisis, and in cases where dullness and irregular fever persists, too many physicians are willing to satisfy themselves with the belief that they have an unresolved pneumonia, and that a little time will make it all right, thus letting them go on to a fatal termination when by a little effort and timely interference life could have been saved.

As to the symptoms, physical signs, and diagnosis of this condition, I have nothing to add to that which may be found in most any text-book on general medicine, or diseases of children, but I would emphasize the importance of the use of the exploring needle in making a positive diagnosis; this should be practiced in every case where there is a suspicion of fluid of any kind, as it is a simple procedure, unattended by any great pain, and the dangers are so slight as hardly to be considered. Simply introduce the needle between two ribs, preferably the seventh and eighth, in the middle or posterior axillary line, and draw the piston of the syringe; if the result is negative repeat the procedure in a different location, as the fluid might be sacculated and not reached by the first attempt. I use a glass barreled syringe and a long needle. In introducing the needle I push till I fail to meet resistance then draw the piston. If I fail to get fluid I unscrew the syringe, leaving the needle in place, replace the piston, screw the syringe back to the needle, and push the needle in till I am sure it has passed through the chest wall, then gradually withdraw the needle, drawing the piston at the same time, and if there is fluid present I am most sure to get it. This may seem a small matter to go into details about, but we don't want to be introducing the needle more times than we can avoid, and we do not wish to be introducing air into the pleural cavity when it is not necessary. In children a needle three-fourths of an inch long will usually be found of sufficient length.

The prognosis of empyema in children under one year old is particularly bad, the mortality, according to Holt, being about 75 per cent.; in children over two years old when seen reasonably early and receiving proper treatment the outlook is fairly good. This is especially true in the cases complicating pneumonia, the recovery of these cases being often surprisingly complete. In the cases complicating typhoid and scarlet fevers, the outlook is much more serious, since in these cases the condition is so often due to streptococcus, or to a combination of the streptococcus and the staphylococcus, these being much more virulent germs than the pneumococcus.

Spontaneous recovery by absorption may take place, but this is so rare that it should not be hoped for. The pus may be evacuated by rupture through the visceral pleura into a bronchus and may be coughed up. This is the most favorable method of spontaneous evacuation. Other means of natural termination are by burrowing through the chest wall and forming a pointing abscess, by rupture into the œsophagus, and by opening through the diaphragm into the peritoneal cavity and appearing as a psoas abscess.

Out of 19 cases of empyema reported by Schmidt, in which there was spontaneous discharge of pus, 17 died and 2 recovered. Of 32 cases reported by Killiet and Barthiez which received no surgical treatment, 21 proved fatal. Nathan, of one of the German hospitals, reviews 145 cases of empyema in children observed during an attendance of 13 years, the mortality in infants under one year old being 97 per cent., the lowest mortality being 25 per cent., this being in children between eight and nine years of age, out of the 145 cases 43 were cured and 93 children died, the others remaining diseased. It is interesting to note that the author followed up the histories of 34 cases discharged as cured and found their condition good. Only two were afterward found to be subject to tuberculosis, this proving our statement that tuberculosis doesn't play the part in pleurisy of children that it does in pleurisy of adults.

Empyema is almost purely a surgical disease, but it is well to give some tonics and to order an easily digested nourishing diet. The medicines used are principally to build up the condition of the patient, and I have found good results from a preparation of cod liver oil containing creosote and guaiacol. In my opinion the pus should be evacuated as soon as it is found to be present, provided the condition of the patient will permit, though some physicians prefer to wait till the period of acute inflammation has subsided as shown by lower temperature and stationary physical signs. Aspiration as a cure for empyema is a failure, and is now rarely employed except in cases where an immediate operation cannot be done and the symptoms are urgent; in such cases it is employed for temporary relief only. Simple incision with drainage is the operation most often employed and while I do not intend to go into the technique of the operation I will mention some precautions that are important and should be regarded. The incision is often made too short and the drainage tube often too soft and too small. The incision should be at least one and one-half inches in length; for when short the action of the inter-costal muscles

bend and compress the tube and cause it to become plugged. Many physicians make a mistake in using a tube too small, in such a case drainage is not free and a small tube is much more liable to become plugged with fibrin. The tube should be made of heavy rubber fenestrated and as large as the width of the intercostal space will accommodate, if it is a half inch in diameter all the better. Holt advises the practice of introducing two tubes side by side for the first few days. This diminishes the danger of having a tube plugged with fibrin and also diminishes the chances of having a tube compressed between the ribs or by the action of the muscles. Two tubes having more resistance than one, I have wondered why we do not have a specially constructed tube for the purpose, made of hard rubber fenestrated and having a thick, close-fitting soft rubber shield to rest against the side when the tube is introduced. With a tube of this kind there would be no danger of compression and the only objection I can see to such a tube is that it might produce erosion of a rib. The usual duration of the discharge in cases treated by simple incision is from three to six weeks, the average being about five weeks.

The operation of resection of a portion of a rib is advised by some surgeons as a routine practice, but in my opinion if the precautions I have mentioned are observed this is necessary in only a limited number of cases, the indications for resection being overlapping of ribs, or very narrow intercostal spaces. In some chronic cases which have been neglected and in which the lung is bound down by firm adhesions. A still more radical operation is sometimes required, that of removing portions of several ribs, and is known as thoracoplasty, or the operation of Estlander. After drainage is established in cases of empyema in children I think it advisable to encourage expansion of the lung by some form of respiratory gymnastics. The apparatus of James is both simple and effective for this purpose. It consists of two bottles with perforated corks connected by a rubber tube. One bottle is placed higher than the other and the child by means of a blowing tube forces a colored fluid from the lower into the higher bottle and allows it to siphon back. This amuses the child, encourages expansion of the lungs, and causes the expulsion of the fluid from the cavity. These cases often make a surprisingly complete recovery and in an incredibly short time.

Case 1.—On February 13, 1908, I was called five miles in the country to see a boy and found him suffering with pneumonia in the lower lobe of the left lung and also severe pleuritic pain. On the second visit

I found the right lung involved also, pain in that side, however, being very slight. The pneumonia ran the usual course, the crisis occurring on the eighth day, and it seemed that he was going to make an uneventful recovery, notwithstanding the fact that dullness persisted in the left side. In about five days he began to have a second rise of temperature and I discovered that the left side was gradually filling with fluid. After trying diuretics and other means to encourage absorption for a few days I introduced the exploring needle and got a syringe full of pus, and on the following day, March 4, I operated under chloroform anæsthesia, doing a simple incision. The general condition of the patient at once began to improve and in about five weeks the tube quit discharging. This case was complicated by a large abscess just below the right clavicle making its appearance about five days after the operation. After incision and drainage it discharged quite freely for about a week and healed. To make sure that I had not overlooked an empyema in the right side, and that this abscess had not originated in an effort at spontaneous evacuation, I introduced the needle into the right side of the chest and got nothing but a few drops of serous fluid. By the time the tube quit discharging the patient had almost regained his former strength. This boy was in my office about one month ago and said he was entirely well and could tell no difference between his right and left sides.

Case 2.—On March 19, 1908, I was called in consultation with a physician 17 miles in the country to see a little girl 4 years old. The history of the case as given me by the physician was that about eight weeks previous to that time he had been called to the child and found her suffering with typhoid fever, that the fever had persisted for about four weeks and gradually declined, the temperature some days prior to calling me being subnormal. I found the child very much weakened and emaciated. Upon examination of the abdomen the results were negative, but when I passed to the chest I soon discovered that the right pleural cavity was filled almost to the clavicle with fluid, and upon using the needle found it to be pus. The intercostal spaces were very narrow and I was at once convinced that the best method of operation was to do a resection, but this I was not prepared to do, having with me only a small pocket case of instruments and 17 miles from town. So thinking that I might get good results I did an incision under primary chloroform anæsthesia. I kept the wound open for several minutes by pressing the ribs apart with forceps and evacuated most of the pus be-

fore putting in the tube. The tube was small, made of a soft rubber catheter, but it seemed that drainage started up nicely. I left instructions with the physician to watch closely and if the tube didn't keep up drainage to notify me. I was very much encouraged when he reported next day that the tube was discharging freely and the patient doing well. I had no further report until a week later, when I heard the little girl was dead. The report coming to me that the matter all ran out and tube quit discharging on the second day after the operation, but that the patient was so weakened by the fever and the abscess that she just couldn't get well. I leave you to draw your own conclusions, and I censure myself as well as the other party, for in this case a resection should have been done even if it was inconvenient to do it.

Normal Salt Solution: Its Uses and Methods of Administration.*

By C. A. Woodard, M. D., Durham, N. C.

In private practice, normal salt solution is not so widely used, but in hospitals it is one of the chief and most frequently used agents. This variance is probably due to the fact that in hospitals the requisite solutions and apparatus are always on hand, and a nurse or resident ready to institute the procedure; while in private practice frequently none of these is available; hence the habit of the physician of resorting to various other drugs and measures to the comparative exclusion of the procedures which constitute the subject of this paper.

Normal salt solution is a six-tenths of one percent solution of sodium chloride in water. Its alkalinity is of the same degree as that of the blood; hence its name. When introduced into the tissues, a vein, or the bowel, no osmotic interchange takes place, which is, of course, due to the equilibrium of the alkalinity of the solution and the blood; or, in other words, the equilibrium of osmotic pressure.

The important effects of salt solution when administered by one of the methods to be mentioned are to add fluid to the body, to stimulate the circulatory apparatus, to increase renal activity and perspiration and to dilute whatever poisons may be circulating in the blood.

The addition of fluid to the body is indicated in such conditions as severe hemorrhage, severe diarrhoeas, as in cholera and some cases of typhoid fever; in shock, in which the patient becomes exsanguinated

as it were in his own veins; and in conditions in which the blood is charged with poisons due to improper excretion, faulty metabolism or the activities of bacteria.

By the addition of a quantity of innocuous fluid to blood impregnated with poisons the strength of the poison is diminished by dilution; and, by the increased perspiration and renal secretion, they are more rapidly eliminated.

Of the procedures I shall mention as methods of administration, enteroclysis is the simplest and the one most easily and conveniently used. Nothing more is needed than an ordinary fountain syringe, a rectal tube and the salt and water. Sometimes a return flow tube is used, but this is a refinement and not essential. The solution should be sterile and only a few degrees above the body temperature, as high temperature may excite peristalsis and induce the expulsion of the solution.

The patient is placed in the right latero-prone position with the hips elevated on a pillow and the knees flexed; or, the patient may lie in the dorsal position. The solution having been placed in the bag of the syringe, and the tube lubricated, the bag is elevated from two to three feet and the flow of the solution allowed to begin in order to displace all air from the tube. The tube is pinched to stop the flow and is carefully introduced into the bowel beyond the flexure of the sigmoid. After the tube is introduced into the rectum its further introduction may be facilitated by relaxing the pressure on the tube and allowing the flow to begin. This flow of the fluid distends the rectum and permits the rectal tube to be gradually pushed further in. As soon as the bag is empty the tube is gently withdrawn and the patient kept quiet for a few minutes to aid the retention of the solution. Quantities of from a pint to a quart are generally administered. But, if irrigation of the bowel is intended, an unlimited quantity may be used, as the fluid finds its way out by the sides of the tube or through the return flow, if a tube of that variety be used. A Kelly pad or some substitute must be used when irrigation is done, so that the returned fluid may drain into some suitable receptacle.

Hypodermoclysis comes next in point of ease of administration. This requires much more care in technique and is best not attempted unless it can be done under thorough aseptic precautions. A fountain syringe may be used for this, though a glass irrigator jar is preferable. The other things needed are a hypodermoclysis needle, or an ordinary aspirating needle, solutions for sterilizing the skin, and collodion and cotton for sealing up the little wound. It

* Read before the North Carolina State Medical Society at a recent meeting at Winston-Salem, N. C.

is highly important that everything used, including the operator's hands, be sterilized.

It is desired to introduce the solution into the loose cellular tissues beneath the skin; hence the points of election for the puncture are the abdomen, the axillae, under the breasts, or the inner aspect of the thighs. The region in which the puncture is to be made is thoroughly sterilized and a sterile towel laid over the part to protect it until the other things are ready. The solution is placed in the bag of the syringe or irrigator jar and the vessel stopped with sterile cotton. The temperature should not be above 104 or 105 deg. F. The needle is connected with the tubing and a little of the fluid allowed to flow to expel the air and warm up the tube. Then the needle is introduced through the skin into the cellular tissues beneath and the flow started again. The bag is elevated from two to four feet above the level of the patient. If the needle be a large one a low elevation is sufficient, but if it be a small one it is necessary to elevate the bag fully four feet to overcome the resistance of the small calibre of the needle. It is best not to introduce the fluid too rapidly. Hare states that one dram to each pound of the patient's weight in fifteen minutes is fast enough. When one point seems sufficiently distended, the needle may be withdrawn and introduced elsewhere. The quantity of fluid used will depend upon existing conditions and the results desired. Ordinarily a pint or quart is used, but if stimulation is desired, it is well to watch the pulse and continue the flow until the pulse improves. The procedure may be repeated every four, six or eight hours, as indicated. As suggested above the little wound is sealed with cotton and collodion.

The most tedious method to be mentioned is intravenous infusion. If careful technique be required for hypodermoclysis even more care should be exercised in this case; for here the fluid is introduced not into the bowel where it is absorbed through the intestinal wall, nor into the cellular tissues beneath the skin where it is possible for an infection or solid body to remain local, or air to be harmlessly disposed of, but directly into a vein, into the blood current which flows to the heart, thence to the lungs, brain and other important organs. An infection thus introduced may produce a phlebitis, a general septicemia or pyemia, or a solid body (which becomes an embolus when thrown into the blood stream) may be carried to the lung or other important organ in the body and produce an infarction, and perhaps abscess; or to the brain, producing the same condition or even par-

alysis. An air embolus thus introduced may reach the heart in sufficient bulk to produce sudden death, though this is unlikely. Practically, however, none of these is likely to occur if one is reasonably careful in technique.

The apparatus necessary is the same as for hypodermoclysis except that a specially designed blunt canula with a shoulder near its tip is used instead of a sharp needle. The median basilic or cephalic vein is selected, though some prefer to use a vein of the leg. After the skin has been sterilized a bandage is applied about the arm, above the point to be opened, to constrict the venous circulation and cause the vein to stand out prominently. The skin over the selected vein is incised with a scalpel for a distance of about an inch, the fat divided down to the sheath of the vein, and the sheath dissected free for half an inch. A ligature is applied about the vein at the lower end of the incision. This together with the bandage around the arm keep the vein distended for the phlebotomy. A ligature is applied about the vein at the upper end of the incision and left untied. A small incision is made into the vein and the canula introduced into the opening. The canula is now pushed in and the ligature tied about the vein including the canula within its grasp. The bandage is removed from the arm and the solution allowed to flow. The bag or irrigator jar should be about one or two feet above the patient and the fluid allowed to flow slowly. An hour should be consumed in the administration of a quart, for in intravenous infusion the fluid goes instantly into the circulation and is not delayed for absorption as in hypodermoclysis.

Before introducing the canula the fluid should be allowed to flow in order to displace the air, and if the canula be dipped into salt solution before its introduction blood will not coagulate on its tip as it is introduced.

When as much fluid as is desired has been infused, the canula is removed, the ligature tied, and the little wound stitched up and aseptically dressed.

As the fluid flows into the vein the pulse and respirations improve and the fever if present is usually somewhat reduced. However, in from two to thirty minutes the patient enters the critical stage. There may be a chill and strong rapid pulse and, later, flushing of the face, followed by a profuse sweat. The respirations may become labored and there may be increased urinary flow, and even escape of fluid by the bowel. But after a few hours these symptoms disappear and the patient gradually improves.

Some of the conditions in which these

methods may be used may now be mentioned.

It is well known that in typhoid fever the free use of water is a valuable aid to the treatment. The administration of water by mouth may be reinforced by enteroclysis, and, in severe cases, hypodermoclysis. It may be repeated three or four times a day with benefit. In pneumonia, especially those cases which show profound toxemia, the same steps may be taken. In diabetic coma the patient is certainly sometimes restored to at least temporary consciousness. In uremia, or acute suppression of the urine, there is no better adjunct to the treatment than the use of these measures. In desperate cases continuous flushing of the bowel, using unlimited quantities of salt solution, may be used, and, sometimes undoubtedly proves life saving.

Sometimes in uræmic conditions, it is advisable to withdraw fifteen or twenty ounces of blood before using intravenous infusion. Caille states that enteroclysis will produce improvement in anemia even when iron and arsenic, etc., are excluded.

These measures may be used in any of the acute infectious diseases, as mentioned in typhoid fever, and particularly are they of value when for any reason the stomach disbars medication.

In dysentery and the various diarrhœas in adults and in children nothing is a better part of the treatment than washing out the bowel, thereby removing undigested food and other irritating and fermenting matter, and retarding to some degree the formation of gas. The idea in these cases is not, of course, the systemic effect after absorption, but the local cleansing effect on the bowel.

In intestinal obstruction due to intussusception, or impaction of feces it is feasible to try enteroclysis, using high pressure.

In cases in which it is desired to add heat to the body enteroclysis may be resorted to. The solution should be as hot as 110 deg. F., at least.

In heat-stroke the same method may be used, except that in this condition the solution used is cold instead of warm. A temperature as low as 65 deg. F. is compatible with safety. Marked reduction of pulse follows.

In profound shock and severe hemorrhage salt solution is one of the most valuable agents, if not the most valuable agent at our command. In very profound cases intravenous is best; in milder cases, hypodermoclysis; and in very mild cases, enteroclysis. When the circulation is very weak and the blood pressure low it may be that the capillaries will not take up the fluid under the skin. However, if enteroclysis be used first the circulation will be stimulated sufficiently

to bring about absorption under the skin.

The injection of salt solution just before chloroform anaesthesia has been used with considerable benefit to the patient. A large quantity is used and it is claimed that the patient can stand more chloroform, comes out from under the influence of the drug more quickly, suffers less from the after effects, and recovers more rapidly than when the injections are not made.

Circulatory depression due to any of the above mentioned conditions may be treated by these methods, but, of course, organic heart disease is not amenable, and in cedematous and ascitic conditions they are obviously contra-indicated.

The most brilliant results from the use of normal salt solution, however, have been obtained in the treatment of suppurative peritonitis by Murphy's slow method of proctoclysis, together with the exaggerated Fowler position. Without going into the history of the development of the method, it will suffice to say that it has been demonstrated that the upper or diaphragmatic region of the peritoneum has greater and more rapidly absorbing power than that of the lower or pelvic region. Hence, if a patient be propped up in bed in a semi-erect position; or better according to Dr. Stuart McGuire, if the head of the bed be markedly elevated, the toxic fluid in the abdominal cavity will be determined by gravity away from the upper region to the lower, where absorption is less rapid.

It has also been demonstrated that fluid introduced into the rectum will find its way, by anti-peristalsis, up the colon to the cecum and there be absorbed. By this means the relatively dehydrated vessels become filled with fluid and the peritoneum becomes a secreting surface rather than an absorbing one. So, if proper incisions be made and drainage tubes introduced (it is not my province to go into the steps of the operation) instead of the peritoneum absorbing the toxic material the current of osmosis is reversed, the blood serum is secreted into the peritoneal cavity and the toxic matter washed out through the drainage tubes.

The procedure may be instituted as follows: An ordinary fountain syringe with the short nozzle may be used. It is sufficient to introduce the nozzle just within the rectum as the normal tone of the sphincter is sufficient to hold it in place. The idea is to introduce the solution only as rapidly as it can be absorbed by the vessels and not rapidly enough for it to accumulate in the bowel and act as an enema. To do this it is necessary for the flow to be very slow, or about a dram a minute. It was formerly difficult to regulate the flow, but a device

has recently been suggested which obviates the difficulty: Near the bag the rubber tubing is divided. Into the proximal end a piece of glass tubing is introduced the lower end of which has been drawn out into the shape of a medicine dropper. Into the distal end is introduced the larger end of a smaller glass tube of the same shape. A medicine dropper itself will do for this. If the distal and smaller tube (or medicine dropper) be introduced into upper end of the proximal or larger tube and sealed with wax, or washed with a small section of rubber tubing, the device is complete. The result is obvious. The fluid is in full view as it flows through the device. Now, if a forceps be applied above this it is manifest that one can regulate the rate so that the solution merely drops through. By counting the number of drops per minute one can calculate the exact quantity of solution that is introduced per minute or hour. If it is found that the solution is passing in more rapidly than it can be absorbed, and is, therefore, accumulating in the bowel, and acting as an enema, the nozzle may be withdrawn until the rectum becomes quiet and then reintroduced. This procedure may be continued for days. Owing to the slow flow it is necessary that the fluid in the bag be kept very hot else it will be cold by the time it reaches the rectum.

The adoption of this method, together with the exaggerated Fowler position, after suitable surgical procedure, has converted suppurative peritonitis from one of the most fatal diseases to one with a comparatively low mortality rate. In December last, Dr. Stuart McGuire had used it in eighteen cases with but one death. Much the same results are being obtained by numerous surgeons throughout the country.

Hydrastis Treatment of Bright's Disease.†

By Dr. Francis Duffy, Newbern, N. C.

For at least twenty years I have been using *hydrastis canadensis* in cases of bright's disease of the kidney and in some other diseases of the kidney or urinary tract, as the presence of albumin in the urine has been the signal or indication in a general way for the use of that remedy. The use of this remedy was not original with me as far as giving it a place in the catalogue of drugs used in Bright's Disease is concerned, for in some of the old works on *matéria medica* references to the drug may be seen in connection with Bright's Disease, but only as in a catalogue of remedies that have

been used in a given disease. The longer the list the more certain that no effectual remedy or satisfactory treatment has been found, so when I began to use this remedy it was only an adjunct from which a possible advantage might be obtained. After awhile I began to think it was useful in these cases and sought to know how much I might give with advantage and without danger. The preparation used was generally a fluid extract, preferably the alcoholic but often the aqueous. The white preparation I did not use as that does not represent the drug. I soon began to give one dram doses three or four times daily, having as an experiment taken two drams myself with no unpleasant result. I would sometimes use as much as six drams daily in bad cases.

My brother, Dr. Chas. Duffy, with whom I have been so long associated in the same office, has had some favorable results with the use of the remedy in albuminuric cases and from him I got the valuable suggestion to use smaller and more frequent doses. My experiences have been very favorable in this connection as I shall attempt to show by specific references to cases.

I have been asked repeatedly to write on this subject, but have hesitated to do so, largely because I had kept no accurate data of cases, and further because claims of marked benefit or cures of Bright's Disease by any medicine would be startling if they received respectful attention and every statement would be challenged.

To meet these challenges or inquiries, I am well aware that the most accurate physical and laboratory examinations should be made and the most discriminating judgment used to ascertain as far as possible to what the albuminuria is ascribable in any given case which has been cured or benefited by the use of *hydrastis*.

I regret that as for the most of my experiences these details are lacking and consequently this paper is very unsatisfactory to myself.

Of the cases occurring in the earlier years of my experience, I can only say from memory that a number of cases of patients having albuminuria and other cases of kidney disease (in one case convulsions) apparently recovered under treatment by *hydrastis*. Some of these cases were dropsical. In some the duration of treatment was only a few weeks, in others requiring several years.

One case male, age 35 years, occupation a merchant was under treatment over ten years. He bought pint bottles of fluid extract of *hydrastis* at a time and he estimates that he has taken from half a pint to a pint a month, with occasional intermissions.

†Read before the North Carolina Medical Society at its recent meeting at Winston-Salem, N. C.

I examined this man for life insurance and having tested his urine, passed favorably upon his application, and a policy was issued. About a month later I examined him for another company and found albumin in his urine, which condition was constant under repeated tests. He was then given the hydrastis treatment but he continued in a run-down weak condition for at least a year with constant albuminuria. Then there was complete absence of albumin; but with occasional recurrences as treatment was discontinued. During the last five years or more I have not found albumin in his urine. A test at the time of this writing shows none and he appears to be entirely well. He has had only the hydrastis treatment, except as a simple purgative might be required or quinine for malaria.

Bartholow places hydrastis second to the cinchona preparations as an anti-periodic, but I have known malaria chills to occur while patients were regularly taking hydrastis, and while I do not think much of it as an anti-malarial remedy, I have used it in cases of hemorrhagic fever, in some cases and in some stages of which it has seemed to be of value.

In my first experiences I used a number of remedies, such as Basham's Mixture or some other preparation of iron. Iodide of Potash, Digitalis, Lithia, etc., plus hydrastis. Now I use hydrastis only, except perhaps some symptomatic remedy as a saline purgative or quinine for malaria or possibly iron for an anæmia.

I use from twenty minims to thirty, usually every three hours, sometimes every two hours, sometimes at intervals of four hours, exclusive of the hours of sleep. Hygienic rules of course to be observed. Under exposures and chilling of the surface to be avoided, over exertion always increases the albumin. As a rule, no particular diet is enforced except to avoid over-eating, and especially meats. Gluttony, especially as to albuminoids is much more causative of the disease than excessive alcoholic drinking, which however, is to be avoided, and which stands in causative relation to chronic interstitial nephritis. I have never gotten much satisfaction from milk diet as a treatment, but in moderation, it is quite advisable as a food to those with whom it agrees.

The copious drinking of mineral waters in connection with the hydrastis treatment appears to be exciting and harmful to the kidneys in some cases, one of which will be given. But I do not mean to deny the usefulness of minerals in a general way in connection with Bright's disease.

About the first effect of the hydrastis treatment is to decrease the excessive vol-

ume of urine in that class of cases in which this symptom prevails. It is well to find out by measure what quantity is secreted in the twenty-four hours before giving the hydrastis, then as it is given the quantity of urine will usually begin to diminish, day by day, until it reaches the normal amount. I am not aware that the quantity of urine can be reduced by hydrastis below the normal quantity.

At first there may be the same relative quantity of albumin. The absolute amount being diminished in proportion to the reduction of the volume of the urine. Then in many cases after a longer or shorter time all symptoms disappear, sometimes to return, frequently not so.

I do not wish to be too enthusiastic about this treatment, or to be understood as saying all cases will recover thereby. Of course such is not the case.

I am now treating several patients with Bright's disease, who are but little benefited by the treatment. They are cases of long standing. Long undiscovered or long neglected. Some I seldom see, and have but little knowledge of their treatment or condition. One of these now, confined to bed, I warned years ago but he was indifferent until edema and other symptoms compelled him to seek treatment. Hydrastis then seemed to benefit him, but in active employment and disposed to exert himself to the utmost, he was finally overcome, having besides general anasarca adema of the lungs with great difficulty of breathing. Hypertrophic heart, with abnormal blood pressure and arterio-sclerosis, was somnolant and had hallucinations.

For a time hydrastis was continued in this case and remedies used for the reduction of dropsy and relief of excessive blood pressure. This patient continues to live, is more comfortable and even hopeful, but it is only a question of time when he must succumb. He is now on a mixed treatment of hydrastis, calcium chlorid and nuxvomica with saline laxatives as required. Another case now under my care is one of such complications as to make it uncertain that the kidney trouble is entitled to first place in the morbid curriculum. A lady sixty years of age had been confined to her room and most of the time in bed a year before I was called to see her. First examination of urine showed presence of little albumin for which no special treatment was offered. After several weeks the albumin was in greater quantity and microscope showed granular and hyaline casts. Hydrastis treatment was given and within a week every trace of albumin had disappeared. Microscope showed no cast present. Then the hydrastis was reduced to

fifteen drops three times daily. After a few days the bare trace of albumin was again present in the urine. Under this meagre dosage the urine in a few days more showed an increased quantity of albumin. Then fluid extract of hydrastis was ordered in half dram doses every three hours, but the patient was feeble and nauseated and failed to take the desired quantity. From day to day examinations of the urine have been made, but at no time has the urine been entirely free from albumin, though at the time of this writing Heller's test discovered but a bare trace. I am hopeful of a complete disappearance. The national dispensatory states that in medicinal amounts, hydrastis has but little effect upon the vital functions, but in large amounts is exceedingly poisonous and again explains that the dose of the fluid extract is from 5 to 10 minims. Under the separate description of the fluid extract larger doses are stated, but authoritative books do not give the dose the same and in some places the tincture is rated at the same dose as the fluid extract. The entire drug contains hydrastine, canadine, and a volatile oil.

It seems to be an established fact that death may be caused by the drug. Hydrastine being a dangerous constituent. I have prescribed that alkaloid, keeping within the narrow limits of the established dose, of from one-quarter to one-half grain. I cannot say what results followed, or that a given result was on account of it. After having taken two drachm doses of the fluid extract myself experimentally and having no discomfort from it, I did not hesitate to give from a half a drachm to a drachm to others, yet I recently knew of a patient who I think was mildly poisoned with it. The first symptom being an intolerance of the drug which caused vomiting of the doses. Exceptionally patients have a disgust for the drug, saying it is the worst on earth. If I cannot overcome that, I regard the fact as unfavorable to the patient and likely to affect the prognosis unfavorably. The acknowledged therapeutic application of this remedy is for mucus membranes. The epithelium becomes soaked in it, when enough is applied, and the taste and stain are not easily eradicated. That it is useful in such cases is common knowledge set forth in any therapeutic work. As the alkaloids are eliminated by the kidney's largely unchanged, it would seem rational that those organs might be beneficially influenced by the application. My own experiences as related in part, however imperfectly, assure me that such is the case, but I have not found in literature that the profession is aware of that use of the drug. Taken as an example the text books on the

practice of medicine, materia medica and therapeutics in the Johns Hopkins School of Medicine, Baltimore, do not mention the remedy in this connection.

The following case seems to illustrate the possible harmfulness of too much treatment. An elderly gentleman came to my office complaining of symptoms which I thought might be referable to his kidneys. On examination of his urine my suspicions were confirmed. He was in consternation when informed of his trouble. He was placed on the usual hydrastis treatment, no other drug or medicinal agent was used. He slowly improved until I assured him that there was no longer a trace of albumin in his urine. The drug was advised in diminished quantity and I saw no more of him for awhile. Then he returned not feeling so well, and an examination showed a return of albumin. Investigation discovered no cause for the relapse, except that he had tried to make assurance doubly sure by supplementing my treatment with copious draughts of mineral water which he had ordered without my knowledge. I directed him to discontinue the mineral water and stick to the hydrastis. In a short time albumin disappeared and has not to my knowledge returned. I have made several examinations of his urine.

One more will close my report of cases.

On the 9th of April, 1908, a man came to my office for treatment. He is aged forty-nine years, six feet in height and weighs three hundred and thirty pounds. Breathing was labored and his legs very edematous. Examination of urine showed copious albumin. Microscope showed hyaline and granular casts. Heart appeared to be normal. No stiffness of the arteries. No fever or other acute symptoms. He was placed on the hydrastis treatment exclusively, except that some ipecac was furnished him in case he could not otherwise control his inordinate appetite. He was especially instructed as to hygiene and strenuously advised to eat but little, especially of meats. On the 14th of April he returned. He reported that he had carried out instructions. Albumin and casts had entirely disappeared from the urine. Edema about all gone. Looking better, quite cheerful. Examined since several times since the second visit, he shows no sign of trouble except his obesity. About six months ago this man had what appeared to be kidney colic. I examined his urine at that time and a number of times afterward. There was no albuminuria then.

I know full well the imperfection of the data herein given. It is with diffidence that I give them to the medical profession, with the hope that enough interest may be

excited in this subject to cause clinicians with hospital and laboratory facilities and abundant material to make a discriminating study of the remedy, hydrastis, in its relation and application to kidney diseases and to give it the proper value. Meantime to my fellow practitioners of the country and small towns, I say, try it for yourselves, with such advantages as you have.

Nothing will reconstruct a degenerated organ, but it is not too optimistic to say that a vital organ capable of functioning may be amenable to some assistance and the beginnings of morbid processes may be effectually arrested.

There is another class of cases involving the kidney in which I have only made one trial of this remedy, namely: The toxæmias of pregnancy accompanied with dropsy and albuminuria. This case came under my observation about the first of March of 1908. Examination of the urine showed no albumin at that time. Subsequent examinations gave the same result, but about the first of April the husband brought a specimen of urine and made the statement that his wife was becoming edematous, had headaches and numerous specks before the eyes. Examination of the urine revealed albumin. Microscope showed no casts. The patient was advised to avoid eating meats, to take milk and vegetable diet, but in all diet to be abstemious. Patient was given saline purgatives and diuretics. Small doses of protiodide of mercury thrice daily. Mixed bromides were given to control headaches and nervousness. Several reports and examinations of urine ranging through a period of two weeks showed no substantial improvement. Then all medicinal treatment was dropped, except fluid extract of hydrastis, half drachm doses every four hours and mixed bromides as required. At the end of one week there was little change, but slight diminution of albumin in the urine. Treatment was continued. The patient living in the country was not heard from again until the 30th of April, when she was delivered of a child with no untoward event. On questioning her she told me that the dropsical swelling had disappeared as well as the headache and spots before her eyes before the time of her delivery. I had no other opportunity to examine the urine.

The very high cost of this remedy is a serious drawback to its use in many cases. The plant is said to be becoming scarcer and scarcer, yet its habitat extends over a large section of country. Up to the present it seems to be gathered as it grows wild and its area constantly encroached upon. It may be that its usefulness and very high price may lead to its successful cultivation.

The Importance of the Work of the General Practitioner.†

By Dr. L. B. McBrayer, Asheville, N.C., Member N. C. State Board of Medical Examiners, First Vice-Prest. Medical Society State of North Carolina 1906, Orator Medical Society State of North Carolina 1907, Ex-Prest. Buncombe Co. Medical Society, Ex-Prest. U. S. Board Pension Examining Surgeons, ex-Coroner Buncombe County, Surgeon Mission Hospital, Surgeon Asheville-Biltmore Sanatorium, Member American Medical Association, Mississippi Valley Association, American Electro Therapeutic Association, Medical Society of the State of North Carolina, Examiner, Equitable Life Insurance Society of the U. S., Aetna Life Insurance Company, Hartford, Conn., Security Life and Annuity Company, Greensboro, N. C., North State Life Insurance Company, Kinston, N. C., Jefferson Standard Life Insurance Company, Raleigh, N. C., etc.

Is there any room left for the General Practitioner? One would not think so when he thinks of the many different specialties. There is the Dermatologist, the Aurist, Rhinologist, Gynæcologist, Stomatologist, G.U. Specialist, Abdominal Surgeon, Naval Surgeon, General Surgeon, Tuberculosis Specialists, specialists on diseases of the eye, ear, nose, throat and chest, Obstetrician, Pediatricist, Pathologist, Bacteriologist, Neurologist, Alienist, Ophthalmologist, Psychiatrist, Chiropodist(?), Habit Cure specialist, Osteopath, who is now a legal practitioner in this State, etc. on down.

Then what is left for the General Practitioner? Oh yes! you say, scarlatina, diphtheria, etc. But that is claimed by the Pediatricist and said claim is disputed by the Dermatologist and the Laryngologist. Well, you say, fevers affecting those above the age of puberty, other than the eruptive fevers which belong to the Dermologist and childbed fever which is properly assigned to the Obstetrician. Until recently you would have been correct, but of late our own Dr. Register has found this to be the only field unoccupied by the specialist and he has coined a new specialty that of fevers and has established an enviable reputation in that line, even writing books on his new specialty. And from the great success he is achieving I have no doubt many will be induced to take up this specialty.

Is the office of the General Practitioner then, nothing more than the assorting room in a laundry where the bundles are brought in, assorted and labeled and passed up to the proper department? Or is the General Practitioner nothing more than a floor walker in a large department store whose duty it is to see that all inquirers arrive at the proper place?

Not so, the General Practitioner must be

†Read before the Medical Society of the State of North Carolina. Winston North Carolina, June 17, 1908.

as able to make a diagnosis in appendicitis and other surgical diseases as the Surgeon and must know as well when an operation is demanded. He must know the symptoms of ruptured tubal pregnancy or carcinoma uteri as well as the Gynaecologist and if he does not operate himself he must know when an operation is necessary and always be able to advise his patient intelligently and truthfully when to have and when not to have an operation. He must be able to make as early a diagnosis of tuberculosis as the tuberculosis specialist and should be fully as competent to treat it.

He should use the Pathologist, Bacteriologist, Surgeon and these other specialist to help him in making a diagnosis and in helping *him* to treat *his* patients and not be *used* by them.

He should act as a safety valve to these specialists or he should stand in relation to them as does the rudder to the ship.

Now, 'tis very well known that all these specialists are more or less Faddists. The only sane man is the one who stands four square to every wind that blows, who has no hobby, who weighs everything properly and gives to everything its proper weight, who is well balanced, who never chases a rainbow. We all know that in this world we most often find the things we are looking for. You remember the story of the queen who called two of her subjects and said to one go gather all the flowers in my kingdom and to the other she commanded to gather all the thorns and thistles in my kingdom. The first returned and reported, may it please your majesty the task is too great, there is nothing in your kingdom but flowers. The second likewise reported, the task is greater than a million men could accomplish, for I find thorns and thistles everywhere. You no doubt remember the story of a rich woman that went the round of all the specialists. The Neurologist gave her electricity, hydrotherapy, etc., the tuberculosis specialist gave her the rest cure and serum therapy, the Surgeon did a nephropexy and the Gynaecologist did a curetage, ventro fixation and ovariectomy and so on until she had run the gamut, suffering many things at the hands of the doctors and like the man in the Bible her last state was worse than her first. Until finally she went to a General Practitioner who gave her a dose of Hg. Chlo. Mitis and cured her.

As a matter of fact I attended a medical meeting on one occasion and heard three men read papers and each one of them declared most positively that 33 $\frac{1}{3}$ per cent. of the human race were suffering with the malady that he was riding as a hobby at that time and required the special treatment

that he had been using, in one case an operation, which was plain to see the Surgeon hoped would bear his name, and which I may remark in passing is hardly considered a legitimate operation and is never done by some of the greatest surgeons of to-day.

And so I say the General Practitioner must act as a safety valve. It seems necessary to the existence of these specialists that they should ever and anon, under the inspiration of their work, get on an extra heavy head of steam and the General Practitioner acting as a safety valve will allow them to blow off and no harm come of it. Listen to these men, they are usually well posted in their line, learn of them, but it is not necessary for you to accept everything they say until you have proven it true. Have the Bacteriologist help you in making your diagnosis, but if he fails to find the tubercle bacillus when you have many of the symptoms of tuberculosis, don't wait on him but make your diagnosis and he will corroborate you later. On the other hand if he finds the klebs-*loefler* bacillus in a healthy throat it is not necessary or wise for you to quarantine your patient.

If you call a Surgeon in to see a patient with you, and and after failing to find anything else in his line he finds an imaginary appendicitis and describes with great eclat and holy horror the terrible abyss over which your patient is hanging, when you know she has never had appendicitis, have the manhood to say so, and here's hoping you will have the confidence of your patient so securely that she will never spend an unpleasant moment on account of the consultant's enthusiasm over his hobby. Just act as a safety valve for him and no harm will come to anyone.

The greatest need of the Medical Profession at this time is the ability to make an early diagnosis. Take for example perforation in typhoid, an operation in the first few hours gives a good chance to save life. Postponed twenty-four hours on account of the General Practitioner failing to make a diagnosis and the case is hopeless. Perforative appendicitis is equally as fatal if operation is postponed for a few hours—the General Practitioner is responsible. Volvulus, intussusception and obstruction of the bowels from other causes are only susceptible of a cure if a diagnosis is made inside of a few hours. The General Practitioner is the man who has the patient in charge. Probably the greatest good the tuberculosis specialist has done is in stressing the great importance of an early diagnosis, and necessarily his lamentation has been directed to the General Practitioner, because this responsibility, and a great responsibility it is, falls upon his shoulders.

Cancer can be cured if only an early diagnosis is made and proper treatment is instituted, and again the General Practitioner is the man who is first consulted and in whose hands the destiny of the patient lies.

In Extra Uterine Pregnancy it's the General Practitioner, who must of necessity be Gynecologist and Obstetrician, who must make the diagnosis while it is easy to save life.

In diphtheria the General Practitioner cannot always have the Bacteriologist at his command to confirm his diagnosis and if he has and waits to institute treatment until he gets a report, the child may be beyond the possibility of recovery.

I could go on at length, but it is useless, you have the idea.

Does the General Practitioner then measure up to his requirements? In the main—yes. Is he as capable of making an early diagnosis in typhoid or appendiceal perforation as the Surgeon? There is certainly no reason why he should not be. Is he as capable of making a diagnosis of Extra-Uterine Pregnancy as the Obstetrician or Gynecologist? If not, why not?

Them it is apparent that the General Practitioner must be as well posted on the symptoms, and treatment too if you please, of all diseases as the specialist is in his line. He may not be able to properly conduct the treatment for all diseases, but this is no reflection on him. Do you know anyone who is? Isn't the field of Surgery large enough for one man? Isn't the eye, and especially if you couple with it the ear, nose and throat, enough for one man? Do you think that every General Practitioner should equip himself to cover the field of all the different specialties? Certainly not, this would be impossible if only the armamentarium were considered, but unless he does equip himself mentally as well as any and all the specialists he does not measure up to the requirements of his profession.

"All work and no play makes Jack a dull boy" is true to-day and its true as regards the medical profession. The specialists have a way that amounts to a fad of taking a week or two off once a year or once in two years and going to the medical centers to watch the work of their confrere's in their line. The ablest men we have do this. It is nothing uncommon to run across Ochsner or the Mayo's in New York attending the clinics of Gibney, Coley, Bull, Wyeth and the others. Likewise at the Mayo's clinic you will meet men from New York, Philadelphia, Boston, Frisco, Fayetteville, High Point, Asheville, Berlin and all points north, south, east and west.

The General Practitioner works longer hours, more days and more nights than the specialist, and if anybody deserves a vacation once in awhile it is the General Practitioner. You owe it to yourself, you owe it to your patients and your patients owe it to you. So tear yourself away and visit your confreres in the medical centers in your own and other States and across the pond if you like. It will make you a better Doctor and therefore you will be worth more to your patients and your community. Your patients will feel a pride in the fact that their family physician has gone to the city to see if there is anything new going on in medicine and if perchance you should feel that you are really worth more to your patients and should let it appear in the bills there will usually be no kick coming. Of course your patients will get sick in your absence and will have to call another Doctor, but what difference does it make. If you are worthy of them and they are worthy of you they will return to you, and if not others will come in their stead.

Again if you make a diagnosis of tubal pregnancy and submit your patient to the Gynecologist of your choice for operation, go along, watch him operate, see if your diagnosis is correct; or if you have had the specialist in consultation, see if he can square his diagnosis with the facts. It will do you good. You will be worth more in your professional life for having done so. You know we don't study pathology in the dissecting room or at the autopsy table any more but as John B. Deaver aptly puts it, in this day of advancement we study living pathology.

May I ask again is there any room for the General Practitioner?

Most emphatically—Yes—The General Practitioner is the basic work, the ground work of our profession. The specialist may perchance rise to heights of fame that the General Practitioner may never see. He may become renowned and hear the shouts of glad acclaim from the applauding multitude that may never reach the ear of the General Practitioner, but to reach these heights, to gain this renown he must use the General Practitioner as a stepping stone. And when we shall all stand before the Great Physician who will reward with candor and judge with impartiality, methinks I can hear the Judge say to the General Practitioner come up higher, "for he that is least among you all, the same shall be the greatest."

I cannot close without saying a word in commendation of the profession that composes the Medical Society of the State of North Carolina. Time was, within the memory of most of us, when if an opera-

tion of any kind were needed the patient must needs journey to the city of Baltimore or Philadelphia or New York, but not so any more. In almost every city in our grand old State we have well equipped hospitals at which any and all kinds of operations can be and are done by our native doctors with equal ability and oftentimes with better results than is obtained in the larger hospitals in our larger cities. To-day the medical profession of our Grand Old North State is wide-awake and up and doing. A new operation of great importance is done in some of our great medical centers to-day, you need not be surprised if it is done in North Carolina by a North Carolina surgeon to-morrow.

A new treatment for tuberculosis is promulgated from the continent by cable, possibly to the New York World. Our learned specialists in Greensboro and Asheville will be using it next week. The investigation of pellagra, a preliminary report of which is presented under my section by Doctors Wood, Lavinder, McCampbell and others, is worthy a place beside the work done in the Carnegie Institute for Original Research in New York and will have a valuable place in medical literature for all time.

Only last year when our State School Book Commission was preparing to adopt books for our public schools for a period of five years a request was made that the Company furnishing the books on Physiology and Hygiene be required to have a chapter on tuberculosis and its prophylaxis. The request was granted, the chapter was submitted to the secretary of our State Board of Health and other leaders in the profession in this State for their approval and is now being studied in every public school in our grand old State, and to my personal knowledge this chapter is attracting attention in many States.

And may I be pardoned if I say that this Society has had much to do with bringing about this spirit of progressive medicine throughout the length and breadth of our beloved State. All honor to the men of our profession who have helped to bring about this happy state of affairs. Some of them have gone to their final reward, all honor to their memory and peace to their ashes. And let those of us who are here realize the great responsibility resting upon us and march forward shoulder to shoulder, hand in hand, conquering and to conquer.

Our Milk Supply and Some of Its Relations to Public Health.*

By Tait Butler, State Veterinarian, Raleigh, N. C.

In accepting the invitation of your Secretary, Dr. Lewis, to read a paper at this meeting on the public or market milk supply of the State, I did so with a distinct purpose in view. It is perhaps telling no secret, and it is certainly not meant offensively, if I state that the average practicing physician is none too familiar with the real problems involved in putting into the hands of consumers a wholesome milk supply. But this, in my opinion, is not of great importance. It is not necessary, however desirable, that the physician possess expert dairy knowledge or that he be capable of performing the duties of a scientific dairy inspector. A much more important matter, as affecting any effort for the improvement of our milk supply, is that he have a full and accurate knowledge of the real importance of pure milk for the consumption of those under his care.

Many of those here have given special study to this subject. Others who are investigators have full knowledge regarding certain phases of it, but the general practitioners have not given that attention to the subject which its importance demands. Moreover, the general practitioner gets closer to the public than any other man and it is through him that the general public can be best reached; therefore, in this paper I have decided to talk to the general practitioner and to assume the part of an agitator rather than an educator.

All freely admit the importance of a wholesome milk supply as a general proposition, but how many know fully and accurately the awful results of our criminal neglect in the past along this line. How many have an accurate knowledge of the quality, or lack of quality, of the milk now being sold throughout the State? How many realize the full measure of filth which it carries and what that means in misery and death to the innocent babes which must consume it?

Gentlemen, it is not the ravings of a fanatic nor the extravagance of a sensationalist, but a conservative statement of terribly serious facts when I say to you that the almost total ignorance of dairy science on the part of our milk producers, the lack of knowledge of what constitutes first-class milk and the care it should receive on the part of consumers, and the almost criminal indifference and inertia of the medical profession who are the accepted guardians of

*Read before the recent meeting of the North Carolina State Medical Society at Winston-Salem, N. C.

the public health are seeds, the awful but legitimate harvest of which are ill health, misery, and death to hundreds upon hundreds of innocent consumers during our long hot summers.

The indifference of the public generally and the indifference and inactivity of the medical profession in particular, along the lines of milk and meat inspection, are little short of tragic, and I wish I might say something that would help, in a small way at least, to arouse and increase interest in this long neglected branch of sanitation.

There are three general ways in which the milk supply may have a direct relation to the public health:

1. It may be a means of carrying and transmitting disease from man to man, such for instance as typhoid fever, diphtheria, scarlet fever, cholera, etc.; but of these phases of our subject I shall take for granted you are better informed than I and omit their discussion.

2. Milk may be a means of carrying and transmitting disease from cows to man, such as tuberculosis, anthrax, foot and mouth disease, cowpox, etc. Of these one alone is common, tuberculosis, of which I shall have something to say later.

3. Milk may cause disease in man by conveying disease producing agents or materials, such as filth and the conditions which it favors for the growth of bacteria and the development of toxins and other deleterious substances, also the products of mammitis and other septic troubles.

Of the distinct diseases affecting the cow, which also affect man and which may be communicated from one to the other, tuberculosis is of first importance.

When Koch discovered the bacillus of tuberculosis and proclaimed the identity of bovine and human tuberculosis there was little hesitancy in accepting a conclusion so closely in harmony with the experience and observation of scientific workers in both human and veterinary medicine. Later investigators called attention to the difficulty in transmitting human tuberculosis to bovines and still later the fact was pointed out that the bacilli from bovine and human sources often possessed morphological and cultural peculiarities sufficient to differentiate them; but when Koch followed in 1901 with the remarkable declaration that bovine and human tuberculosis were different and not intercommunicable, few scientific investigators were willing to accept the dictum on the insufficient evidence produced, and at once investigations were started all over the civilized world to determine the truth or falsity of Koch's declaration. In the meantime progress towards preventing the communication of

bovine tuberculosis to man received a decided set-back.

The results of the investigations stimulated by Koch's dogma indicate as clearly as the nature of the case will permit that bovine tuberculosis may be and is communicated to man.

It has been shown that the bacillus from human tuberculosis is capable of producing tuberculosis in many animals, but for no animal, unless man is the sole exception, is it so virulent as the bovine germ. If the bovine bacillus is more virulent for all other animals, including monkeys and apes, it very logically follows that it probably is also more virulent for man than the human bacillus.

Of course, Koch has not recanted. He still maintains the position taken in 1901, but the fact is now pretty generally recognized that bovine tuberculosis may be a source of danger to man.

The next question to arise was naturally to what extent is bovine tuberculosis a source of infection to man?

In their efforts to show that bovine tuberculosis was rarely communicated to man the fact of the greater frequency of pulmonary than abdominal tuberculosis was pointed out and the claim that intestinal tuberculosis of children, the greatest consumers of milk, was rare were made much use of.

Recently much evidence has been developed showing that intestinal or abdominal tuberculosis of children is not so rare as claimed by those who maintain that bovine and human tuberculosis are not intercommunicable.

And still further to the dismay of those who cling to old beliefs because they are old, even the time honored assumption that the chief mode of entrance of the infection agent is through the inhalation of germ laden dust particles has been challenged and met with an array of facts and reason which may well receive serious consideration by all those interested in the question of the relation of the milk supply to the public health.

It has been clearly shown that the introduction of the bacillus into any part of the body, blood vessels, intestines, abdominal cavity or even a part so remote as the tail of the cow is generally followed by thoracic tuberculosis instead of necessarily tuberculosis at the point of entrance or of nearby organs.

Again, when tuberculosis of the intestines is found, especially in children, the bovine germ, which may be recognized, is frequently found in these cases of human tuberculosis. Is this not more than passing strange if the bovine germ does not produce tuberculosis in the human?

In short, recent investigations show plainly that not only is bovine tuberculosis communicated to man but that this is probably not so uncommon as the comparative infrequency of abdominal tuberculosis was thought to indicate.

To question the old inhalation theory of the entrance of the tubercle germ, from sputum pulverized, is I know full well, among the medical men here, likely to lessen the respect which you will have for the other statements I may make, but I cannot resist the temptation to state that it never did have any scientific evidence worthy of consideration to support it.

It is an old, well known fact that drying and sunlight rapidly kill tubercle bacilli. One hour of sunlight will kill tubercle bacilli in transparent layers of sputum, while five hours exposure to sunlight will kill the bacilli in thick opaque layers. Sputum is mixed with mucous, is tenacious and hard to pulverize unless thoroughly dried. Yet we accept the statement that tubercle bacilli resist this drying and pulverizing process to such an extent that this way, and this way almost exclusively, is tuberculosis thought to be introduced into the human system. The theory is not only not supported by facts but is most unreasonable. Furthermore, if the tubercle germs enter by way of the air cells why is it that tuberculosis starts in the capillaries instead of in the air cells? Why is it that tuberculosis starts in the apex of the lung where there is a smaller proportion of air cells than in the base of the lungs?

Another discovery has recently been made; namely, that probably before the tubercle bacilli are expelled from the body in any considerable numbers through other channels, they may exist in large numbers in the manure. Years ago I remember reading in Novy's "Laboratory Work in Bacteriology" that there was a bacillus frequently found in cow manure that stained like the tubercle bacillus—very much like it, indeed, because it probably was the tubercle bacillus.

Now the chief filth in milk is cow manure. That cowy odor is usually plain, vulgar, filthy cow dung.

In the face of these facts what is our position? We know that tuberculosis exists in our dairy herds; we know that when tuberculosis exists in a herd, owing to the passage of the bacilli through the udder, and through the intestines and manure, which almost always contaminates the milk more or less, milk from such a herd is almost certain to contain tubercle germs; we know that infants, the largest consumers of milk, have intestinal tuberculosis more frequently than adults and that the bacillus causing this disease is frequently of the

bovine type; in short, we know that our neglect to exclude tuberculous cows from our herds is causing the death of many human beings, and yet we are doing nothing, literally nothing, to prove ourselves worthy the title of guardians of the public health.

The tuberculin test is the only means of detecting tuberculosis before the products of the cow are likely to be infective, but we are not forcing the dairymen of the State to do what is to their own financial interest to do, test their cattle and exclude the tuberculous animals.

Tuberculosis is not over common in this State except in the dairy herds, and is not as prevalent there as in many States, but it will steadily increase unless controlled. Moreover, if we admit its *existence* even, and the *possibility* of its communication to the consumer of milk, we have no right to stand idly by and permit any human being to take that chance no matter how small the chance may be.

In my opinion diseases of the udder and those conditions of milk included under the general term "filthy" are the most fruitful source of injurious effects upon the consumers of milk. All forms of garget, mammitis or other diseases resulting in pus and other inflammatory products entering the milk, are unquestionably the source of much of the diarrhoeal troubles of infants resulting from the consumption of impure milk. Filth, manure from the cows and stables, which is the most abundant and common contaminating material of unclean milk, has not in my opinion been given its full share of responsibility for the high death rate from diarrhoeal diseases so fatal to young children. Especially is this so in North Carolina.

In short, tuberculosis, diseased udders, and filth are the three main sources of danger to the consumers of milk in this State.

How are these conditions to be corrected? In the first place clean milk is worth more than dirty milk and it costs more to produce it. Are our people willing to pay for clean milk? I believe we are now paying a price, eight to ten cents a quart, which entitles us to a fairly good quality of milk. If this is not enough to enable the producers to put clean milk on the market then you, the guardians of the public health, must educate the public up to the point where it will pay for good milk.

In the second place few of our dairymen know sufficient of dairy science and practice to enable them unassisted to put clean milk on the market. The general supply of milk can be improved, but for many years yet cannot be brought up to the standard necessary for the feeding of infants and sick

people. Comparatively few men anywhere are able to put such a quality of milk on the market. What is to be done?

First start here today such a campaign for pure milk as will arouse public opinion, stimulate dairymen to greater efforts and result in a competent milk inspection and supervision in every town of 3000 population in the State. This can be done and will improve the general condition of the milk supply. In every town where the demand will justify let a certified milk commission be established to encourage some one or more men to produce and put upon the market a first-class milk product. And last, as a temporary and doubtful expedient, if filthy milk must still be consumed by many, establish under municipal control, where conditions render it practicable, a pasteurizing plant where all milk below a certain standard must be pasteurized before being sold. Pasteurizing will not make unclean milk clean, but it may lessen its effects. If generally adopted it is likely to encourage filthy practices rather than correct them. It probably lessens the digestibility of the milk and is only advisable as the lesser of two evils. As between reasonably clean milk and pasteurized milk there is no question in my mind of the superiority of the former, but if it is still necessary to put up with dirty milk then by all means pasteurize. The chief objection to it is that its use is likely to prevent as great an effort to secure clean milk as would be made were pasteurizing not practiced.

How is the general quality of the milk supply to be improved?

First, by a proper system of inspection. Three forms of knowledge are requisite for competent milk inspection. First, a knowledge of cows in health and disease—possessed by the veterinarian; second, a knowledge of dairy science and practice which should be possessed by the so-called practical dairyman, but in our State rarely is; third, a knowledge of milk, bacteriologically, chemically and microscopically.

The milk inspection of a municipality may well be administered by a milk commission, but if so it should be made up of men chosen for their knowledge of the work. For such a commission a physician, a practical dairyman and a veterinarian are logically competent men. Or the administrative part of the work may be left to the city health officer, but the success and efficiency of any system of milk inspection depends on the efficiency of the inspector and the quality of the laboratory work done.

First, there should be a frequent and thorough veterinary inspection of the cattle. The inspector should also be a practical, scientific dairyman who has had experience

in dairying. If it is claimed that such a man cannot be employed then the milk inspection will fall short of a full success just to the extent that the inspector falls short of these requirements.

Our dairymen are not desirous of putting filthy milk on the market, but they don't know. The inspector must be able to *teach* and *lead* rather than try to *force* rapid changes.

In most instances too much importance or reliance is placed on laboratory examinations. These are essential, but they will not take the place of frequent and competent inspections of the dairies and the manner of handling the milk. Bacteriological examinations should be made, for unquestionably a high bacterial content is indicative of a high filth content. If there be a high bacterial content then the inspector must seek the cause and correct it. He must have accurate *dairy* knowledge and practical experience to do this.

A microscopic examination may be made, for a high leucocyte and streptococci content, with the presence of fibrin, indicates inflammation of the udder, but this is of most value when examinations are made of the milk of individual cows.

In the city of Raleigh we have a so-called milk inspection which is practically nothing more than a bacteriological examination and publicity of the results or findings. No competent inspector is employed, no tuberculin test is made of the cattle, and a violation of the regulations does not usually mean any sort of punishment, but with all this good has been accomplished. For instance, in 1906 after a complete neglect of duty for three months the commission was forced to make a pretense of doing its duty by public criticism through the press, and from March 27th to April 27th, 1906, fifty samples, the first taken after this period of neglect, gave twenty with a bacterial count of over 1,000,000 per cc. From March 27th to April —, 1907, fifty samples gave seven with a bacterial count of over 1,000,000 per cc. From March 26th to April 28th, 1908, fifty samples gave eight with a count of over 1,000,000. In September, 1905, ten samples gave an average bacterial count of 1,111,500 per cc. In September, 1906, ten samples gave an average count of 846,000 per c.c. In September, 1907, ten samples gave an average count of 164,000 per c.c. In August, 1906, twenty-three samples gave an average count of 2,570,000. In August, 1907, nine samples gave an average count of 890,000 per c.c.

An improvement, but what filth still exists! Fancy, during the months of March and April milk from three to five hours old in which sixteen per cent. of the samples

have from one to two million bacteria to the c.c.!

A bacteriological examination of milk is of importance, but its chief value is lost unless supplemented by and done in co-operation with an intelligent dairy and cattle inspection. A high bacterial count means either age or filth and large numbers of liquifiers mean in all probability filth, and where dairies are not of fairly good grade, dairy practice rather than age influences most the bacterial count.

We must keep in mind that a healthy cow gives a wholesome product of fairly uniform quality. If the milk is put on the market in bad condition or of greatly varying composition, it means bad dairy practice. Very frequently I hear of this physician or that one who insists that the cow shall receive no cotton seed meal, or no silage, or some other excellent food is tabooed. I have heard of this sort of thing in our city of Raleigh and yet our system of handling milk makes it almost certain that the fat content of the milk from any one dairy may vary from 2.5 per cent. to 8 per cent.

This has actually occurred and is due to the fact that milk is sold from a large can instead of being bottled at the dairy. The faucet being at the bottom of the can and the cream rising to the top, the customers first served get the 2.5 per cent. milk while the last get milk containing 8 per cent. or 10 per cent. butter fat. No sort of feeding will produce a change of over one-half of one per cent. in the butter fat content; in fact, it is doubtful if any effect on the fat content can be regularly and consistently produced by any sort of feeding, therefore it will avail most to give more attention to the handling of the milk, for it will certainly mean discomfort, if nothing more serious, to any delicate infant to receive 2.5 per cent. milk today and 8 per cent. milk tomorrow.

Good milk will not be put on the market until the dairyman is required to bottle it at the dairy under proper sanitary and dairy conditions.

Some of the points that need attention in our North Carolina dairies are:

1. Test all cows with tuberculin and exclude the diseased ones. The North Carolina State Department of Agriculture will do that free of charge on certain reasonable conditions.

2. Institute an intelligent inspection of the cows and exclude all those with any disease of the udder.

3. Prohibit the selling of milk except in bottles and require that the milk be kept below a certain temperature.

4. Prohibit feeding during or just before

milking.

5. Compel dairymen to keep their cattle clean—cows can be cleaned but milk cannot.

6. Compel dairymen to wear clean clothes and wash their hands before milking.

7. Wipe the udders off with a damp cloth and use a covered milk pail.

These can only be brought about by an inspection capable of leading and teaching. We cannot have entirely clean milk at once, but we might have cleaner milk with an intelligent effort.

As an illustration of how the cleanliness of milk is influenced by dairy practice, as indicated by the bacterial count, I desire to present the following charts, the data for which have been taken from bulletins No. 42 and No. 48 of the Storrs, Connecticut, Agricultural Experiment Station.

It has been stated as an excuse for the filthy milk which so many of our dairymen are putting on the market that from lack of knowledge, capital, or other facilities, they could not produce and put clean milk on the market. These charts show that certain practices produced a wonderful improvement in the quality of the milk, as indicated by the bacterial count, and yet all these things could be done by our dairymen. They are all simple, practicable and inexpensive.

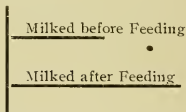


Diagram showing relative bacterial content of milk before and after feeding hay and grain.

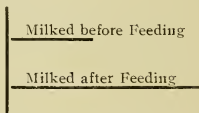


Diagram showing relative bacterial content of milk drawn before and after feeding dry corn stover.

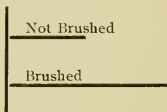
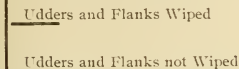


Diagram showing relative bacterial content of milk drawn immediately after the

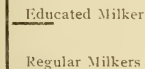
cows had been brushed and when no brushing was done at that time.



Udders and Flanks Wiped

Udders and Flanks not Wiped

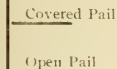
Diagram showing relative bacterial content of milk drawn immediately after the udders and flanks of the cows had been wiped with a damp cloth and when they were not wiped.



Educated Milker

Regular Milkers

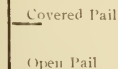
Diagram showing relative bacterial content of milk drawn by an educated dairymilkman and that drawn by regular milkers.



Covered Pail

Open Pail

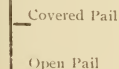
Diagram showing relative bacterial content of milk drawn into a Stadtmueller covered pail and into an ordinary open pail, in a dairy where extra care is given to cleanliness.



Covered Pail

Open Pail

Diagram showing relative bacterial content of milk drawn into a Stadtmueller covered pail and into an ordinary open pail in a dairy where considerable care is given to cleanliness.



Covered Pail

Open Pail

Diagram showing relative bacterial content of milk drawn into a Stadtmueller covered pail and into an ordinary open pail in a

dairy where little care is given to cleanliness.

In all of the experiments furnishing the data upon which these diagrams are based more than ordinary care was taken to follow correct daily practices. In all experiments except in the ones comparing open and covered pails, the Stadtmueller covered pail was used, and all other conditions except those being tested were as near alike in all cases as it was possible to make them. In dairies where little regard is paid to cleanliness the results would still more forcibly demonstrate the effects which the methods of handling the milk has on its cleanliness and the bacterial count.

Arthrodisis and Tendon Transplantation.—Jones, in the British Medical Journal, says that the failure of arthrodisis is due to the neglect of the following fundamental principles: (1) The operation should be performed on children under eight. (2) It should not be performed until the surgeon is satisfied that the muscles are paralyzed beyond hope. (3) The preliminary preparation of the foot by wrench and tenotome must correct all deformity. (4) The operation should be so planned that at its completion the bones lie in apposition to the foot, which should be placed in an over corrected position. This is effected by the excision of skin flaps, by the shortening of lengthened tendons and by the removal of graduated wedges of bones. (5) The wedge should never be taken from the tibia. (6) Proper splints and appliances should be worn until the ankle can bear the body weight.

In tendon transplantation the following should be insisted upon: The over-correction of deformity as a preliminary act. The removal of skin flaps to secure the uninterrupted continuity of over-correction. The direct and not angular deflection of the tendon. The full tunnelling in the one plant through the soft tissues. The fine suturing into the periosteum or bony groove. The careful choice, tension, and nursing of the transplanted tendon. The maintenance of a hyper-corrected position until voluntary power is assured to the tendon. The deflection of body weight during walking from the reinforcing tendon.

Appendix Separate from the Colon.

Williams, in the British Medical Journal, reports the case of a man of thirty years, admitted to the hospital after he had recovered from a third attack of appendicitis, which was of a very severe and dangerous nature. On opening the abdomen the appendix was easily found somewhat to the outer side and towards the back of the

cecum, lying embedded in the mesoappendix, but quite reversed; that is to say, the tip was near the end of that viscus, the proximal end some $2\frac{1}{4}$ inches up by the side of the gut. On opening the appendix, the lumen at either end was completely occluded, the middle portion being occupied with a small mass of hardened fecal matter, which was quite inodorous. This condition must be comparatively rare. The author further states that he has seen recorded in one of the medical encyclopedias the case of a man who spat up his appendix.

Prevention of Posterior Urethritis.—

Green (Indian Lancet) states that the salicylate of sodium, though of comparatively little value in inflammation of the anterior urethra, exerts a beneficial effect in posterior urethritis. Under its influence the urine rapidly clears, and the acute distressing symptoms disappear. This drug has the advantage of rendering the urine markedly acid, a matter of importance; for, by maintaining the acidity of the urine we help in preventing the extension of the inflammation to the bladder and the production of cystitis. The desirability of maintaining the acidity of the urine should also be borne in mind by the attendant when dieting the patient. A light diet of milk, with the substitution of mineral waters for alcoholic drinks, as is so often recommended, causes a decided and undesirable reduction in the acidity of the urine. Apart from the administration of salicylate of sodium, the treatment must also be directed to combating the prominent symptoms of acute posterior urethritis, vesical tenesmus, terminal hemorrhage, etc. Sedatives, such as belladonna or hyoscyamus, may be given, and the use of the hot sitz bath prescribed. Should the distress be very great, small doses of morphia or heroin may be administered. In a case of vesical tenesmus the common urinary sedative—a mixture of hyoscyamus and liquor-potassi—should not be prescribed; its soothing properties are dearly purchased by the serious reduction in the acidity of the urine. Urotropin and helmitol, though excellent urinary antiseptics for many purposes, have proved to be of little value in the treatment of urethritis. They are almost valueless in the anterior variety, and, though of some service in the posterior form, they seem to be less efficient than salicylate of sodium. If salicylic acid is administered, it is changed into salicylate of sodium by the gastrointestinal secretions, and, entering the circulation, increases the urinary flow. It appears in the urine as *salicylic acid*. After large doses of salicylic acid have been taken the color of the urine is changed to a dark

olive green. The change in the color of the urine is due to the presence of indican and pyrocatechin, which are produced by the action of the pancreatic juice upon the salicylic acid in the intestine.

Iridectomy for Glaucoma.—Berry (Edinburgh Med. Jour.) uses myotics only in the after treatment on the principle that they can then do no harm and may possibly benefit; they are useless as a substitute for iridectomy. He considers that statistics of the results of glaucoma operations are misleading. Oftentimes the diagnosis between glaucoma and optic atrophy has been at fault, and a wrongly diagnosed case has appeared in the statistics. Iridectomy can permanently arrest glaucoma in all stages and in whatever form except the hemorrhagic. The longer the disease has lasted, irrespective altogether of the destruction which it has caused, the less likely is iridectomy to succeed. The operation should be done as soon as the disease is unmistakable. In differentiating between glaucoma simplex and optic atrophy Berry relies upon Bjerrum's test. Iridectomy should always be tried as a first measure, however far the disease has advanced. The operation should be followed up by myotics, and this treatment should be continued indefinitely. The incision should be made with a keratome and placed as peripherally as possible without leading to difficulties. This situation will vary in different cases; no hard and fast line can be drawn. The amount of iris removed need not be as great as originally recommended by Von Graefe. Cases in which iridectomy, followed by myotics, fails, should be treated by the formation of a cystoid cicatrix, the section into the eye being made so as to include the tissues behind the root of the iris. The author does not try to get a cystoid cicatrix in all cases, but only when the first operation has not brought relief.

Chemical food is a mixture of phosphoric acid and phosphates, the value of which physicians seem to have lost sight of to some extent, in the past few years. The Robinson-Pettet Co., to whose advertisement (on page xvi) we refer our readers, have placed upon the market a much improved form of this compound, "Robinson's Phosphoric Elixir." Its superiority consists in its uniform composition and high degree of palatability.

The Supreme Court recently held that a woman's stocking is not the proper place to carry money.—Law Notes.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE., N. C.

THE ATTITUDE OF THE PUBLIC TOWARD MEDICAL LEGISLATION.

The inability of the public to comprehend the meaning of efforts on the part of the medical profession to protect it from quackery and imposition, or the belief that every proposal to establish legislation to this end is inspired by no other motive, so far as the medical man is concerned, than the establishment of a monopoly for his own personal advantage and aggrandizement, makes itself apparent in this country no matter where the attempt is made to introduce proper measures by legislative enactment. And it makes very little difference what the measure is directed at or against, so long as the doctors are known to be backing it, or even if it is realized that the smallest good could possibly accrue to their benefit, immediately the hue and cry is raised that the doctors are attempting to establish a monopoly and thus interfere with the rights of the people to employ whomsoever they desire or to use whatever means they may wish to treat their real or supposed ills.

These remarks have been inspired by an editorial in one of the New Orleans papers in which comment was made concerning a bill introduced before the Louisiana General Assembly by one Dr. Labbe, whereby the practice of medicine is defined more clearly and made to apply to all persons who use any instrument or force, whether physical or psychic, or any other agency or means, for the purpose of relieving any bodily or mental disease, infirmity or deformity, whether such remedy be used by the patient or any other person, and whether such treatment be given with or without pay.

Commenting on this the writer says that "It will be seen that this provision practically restricts the sale of braces, eyeglasses, electric belts, trusses, ear drums, etc., so that they can be sold only by a physician or on his prescription." And further he says: "While the people of Louisiana recognize the necessity for a proper system of medical supervision, which will make sure that those physicians who practice are qualified to give proper treatment, they resent this disposition to establish a monopoly of the medical business to the extent that is proposed in the sale of certain lines of goods mentioned above."

This very clearly illustrates the common attitude of the people toward this sort of legislation. They are unable to realize that any other than mere selfish motives could actuate physicians in these matters. They believe that every such attempt is intended to enhance the doctor personally and are unable to believe that his motive could be inspired by any desire to do the best thing for the people and to protect them from charlatans, quacks, nostrums, such fake apparatus as certain manufacturers thrust upon a gullible public. And this measure of Dr. Labbe's was directed not at the people, but at imposition and falsehood.

The public mind does not grasp the idea that it could possibly need protection from itself. A man has a right to say whether or not he shall have a doctor, and what doctor he shall have. And he has the right to choose a quack if he be ignorant enough to believe in him. But the quack, or the nostrum dealer has no right to impose fraud upon the public simply because the public can be fooled. Ninety-nine times out of a hundred, attempts to enact legislation along these lines is for the good of the people, for the confusion of the fake and not for the establishment of any medical monopoly.

As for suggesting a remedy to correct this unfortunate attitude we believe that the doctor must become the teacher of his people, he must put aside the air of mystery which has so long enshrouded the medical man and endeavor to establish better and closer relations with the public.

RABIES.

The great prevalence of rabies at this season of the year in every country where rigid and heroic methods of prevention do not exist thrusts upon us the conviction that there ought to be more attention devoted to the education of the people concerning the cause of hydrophobia, the diagnosis of the disease and its treatment. The public must be aroused before we may hope to accomplish anything in the way of legislation directed toward the prevention and final eradication of many of the ills to which the human frame is heir. Doctors and Boards of Health may talk themselves black in the face before legislative committees without accomplishing anything, but when public sentiment has been aroused and its pressure brought to bear upon the law makers results are obtained. That it is possible to prevent hydrophobia by legislative enactment is proved by actual experience in other countries. Compulsory muzzling of dogs, while doubtless not agreeable to owners of dogs and certainly not to the dogs, has been followed by the almost total eradication of rabies in Ger-

many. In London the muzzling law cut the number of cases among people from 176 to 44 in a single year. In two years the number had fallen to three. Then the S. P. C. A. or some similar body got in its work; agitation against the muzzling of dogs caused the lapsing of the law, and the disease quickly became prevalent again.

With the hot months of the summer season, we have seen, almost daily, accounts in the lay press throughout the whole country of persons who are bitten by supposedly rabid dogs. In our own State of North Carolina the number of people who have been attacked by dogs during the past few weeks is warning enough that some active measures are necessary to protect the public against hydrophobia and when we observe the hundreds of stray, unconfined dogs which wander about the streets of our towns, a constant menace to helpless humanity, one can but hold up his hands in horror at the utter disregard of the common safety shown by those who have the power to enact laws which would remove the possibility of this disease in large part. The faith on the part of laymen in the efficacy of the madstone is a commentary on the enlightenment of the age in which we live. The idea that a porous piece of stone, worn smooth by attrition in the stomach of a deer, (for that is said to be the source of most of the madstones of which we have heard) could have any effect toward neutralizing the poison of rabies is parallel to the darkest superstitions of the middle ages. Certainly a large percentage of those bitten by dogs, supposedly mad, would never show any symptoms of rabies whether a madstone were applied or not. And if the dog were mad the application of a stone can never prevent the disease. The popular conclusion that the madstone prevents the disease is naturally a profitable financial asset to the owner of the stone, but there ought to be some way of saving people from the imposition practiced upon them because of their belief in such a falsehood.

There is no cure for rabies once the disease has made itself manifest. But it can be prevented. The Pasteur method of diagnosis and inoculation offers a positive boon to those who are the unfortunate victims of dog-bites, and we are exceedingly glad to see that the State Health Laboratory with its capable new director, Dr. C. A. Shore, is now equipped to carry on this highly important work. There is ample time after one has been bitten in which to make the diagnosis and apply the inoculations and the opportunity for proper treatment is thus placed within the reach of every inhabitant in the State. Doctors should take the trouble to write to Dr. Shore for particulars and

thus place themselves in position to take the proper steps in every case of dog-bite. An examination of the brain cells of the animal that inflicted a wound enables a positive diagnosis to be made and the proper—and in every case where the animal is found to have been rabid—the absolutely necessary treatment will save the victim from the tortures of death in one of its most horrible forms.

BUBONIC PLAGUE.

The alternate admissions and strenuous denials on the part of certain Central and South American States that bubonic plague exists, or has existed, within their borders, were it not a problem of the vastest gravity to the whole world, would be a most ludicrous spectacle. Everybody believes, of course, that plague does exist in Venezuela and elsewhere, because where there is so much smoke there must be fire. In one day's paper the news appears that Caracas and La Guayra *officially* has the plague; the next day one reads that the Venezuelan Minister of Foreign Affairs informs the diplomatic representatives of the powers through the German minister of the total disappearance of the plague. *Officially* the plague has curious outbreaks; *unofficially* it quietly and stealthily goes its way, gradually encroaching upon the whole earth, claiming its victims with impunity, and, even within the borders of the great United States of America, it exists; and for all the public knows or cares, the terrible disease may be spreading eastward from our western coast. Its onward march is not swift, but it is sure and inexorable.

We do not mean to be alarmists over even the shadow of a danger, but a certain supine indifference has ever characterized our people until the actual presence of a menace has aroused them into action. With plague existing for months in ports with which our cities have had large commercial relations no official action was ever attempted to compel the adoption of such measures as would prevent the importation of the disease into the United States. A vast deal more has been said and done because President Castro justly, or unjustly, interfered with the workings of the commercial enterprise of United States capitalists; the German government alone has had the temerity to wring from Castro the official admission that there is plague in Venezuela.

That the reports which have been circulated have damaged the trade of Caracas, La Guayra and other cities is proved by the action of the business men of these places who alone have made any attempt to fight the disease. They have subscribed funds with which to build plague hospitals and

have provided for a bounty to be paid for rats killed.

Cases of bubonic plague have been reported in Caracas and La Guayra; Port of Spain; St. Thomas, Dutch West Indies; Panama (near the Columbia border). Since July 15, it has made its appearance in the Island of Terciera, one of the Azores group. So far as we know (*officially* at least) it no longer exists in and around San Francisco.

The disease has not yet assumed an aspect in America of serious epidemicity, but for all that it is a problem which demands genuine attention. The terrible mortality in India and other Asiatic countries is warning that the presence of the disease is a menace which no people can for a moment afford to disregard.

THE PROBLEM OF VIVISECTION

It should be a source of no small gratification to those sane and sensible members of the medical profession, whose vision is not obscured by the paltry sentimentalism that actuates the more rabid of the antivivisectionists, to see the stand taken on this subject by some of the lay papers of the country. An editorial article appearing recently in the Charlotte Daily Observer shows that its editor is able to appreciate the real value of, and the genuine necessity for, animal experimentation. Says this paper: "Naturally, the antivivisectionists lay great stress upon the sufferings which such practices frequently involve for the poor dumb creatures, and they tell harrowing tales of torture tables. The experimenter himself, they say, must inevitably become brutalized and unfit to continue in the medical profession. Upon the crucial question whether valuable results are attained, the vast majority show themselves absolutely and wilfully blind to any unwelcome evidence. They here reveal themselves as thorough-going sentimentalists and doctrinaires, flatly denying that facts are facts. Eminent medical authorities have prepared a long list of immensely valuable discoveries secured to mankind through vivisection and not possibly attainable otherwise—discoveries which, in their aggregate, mean the saving of thousands of lives every year and the prevention of suffering untold. Denying this in much the same spirit as Mrs. Eddy's followers deny everything irreconcilable with their theory, the antivivisectionists can only take refuge behind a doctor here and there who is presumably either a sentimentalist himself, a half-ignoramus, or one of those members of his profession who by publicly taking issue with all the rest willingly attract notice to themselves. The valuable results obtained through vivisection are

plain matters of record and can be questioned by no rational observer who is at once honest with himself and with the public." Dr. Flexner's work at the Rockefeller Institute is cited as an instance in which the sacrifice of animals resulted in a reduction of sixty-six per cent. in the mortality from cerebro-spinal meningitis, a result which "would have been utterly impossible without the infliction of pain and death upon animals in the laboratory."

The paper further remarks that: "But for positive assurances that, thanks largely to anesthetics, the infliction of much pain is avoided in nearly every case, we should probably, against our reason, go with the anti-vivisectionists. In our opinion the practice should be surrounded by law with every possible restriction and safeguard wherever it occurs. These precautions having been taken, vivisection must continue as a necessary cruelty. A single human life is of more value than the lives of many vivisection subjects, and one such sacrifice may be the means of saving many human lives."

This is certainly a most commendable attitude, and we quote it at length because of its possible powerful influence on the public mind. The medical profession must not lose sight of the considerable agitation and attempts at legislation undertaken in a number of States toward abolishing vivisection entirely. It would be a calamity which would block all progress along medical lines and handicap scientific seekers after truth to an extent impossible at present to foresee.

The duties and the limitations of health executives should be more freely and frequently discussed. Even most physicians have a very hazy idea of the subject. Oftentimes some proposition is accepted on the spur of the moment, without realizing its full significance.

There are private physicians, hospitals and pharmacists, who are competent and ready to care for all the sick in the nation. There is practically no private provision for the comprehensive study of etiology and epidemiology, and for the control of the sources of sickness. This latter field must be cultivated by municipal, State and National departments of health. There is little excuse for public health officials to enter the field of treatment, unless that becomes necessary in prevention of disease. All money, time and energy expended in treatment is taken from the work which they alone can accomplish.

By the free distribution of antitoxin, we are told that the Massachusetts State Board of Health has saved to the residents of the

State over a quarter of a million of dollars within the past year. Other States are making similar provisions, and some are preparing to treat rabies at State expense.

Suppose it is admitted that at an expenditure of \$50,000 the State has furnished a supply of antitoxin which would ordinarily retail at \$300,000. This does not necessarily mean a saving to the citizens of \$250,000, as appears upon its face. A certain portion is used among the poor whose treatment and food must be provided by the commonwealth. It is customary to obtain this at wholesale rates. As to that which is used for those who are able to pay, it must be recognized that legitimate private enterprises are being invaded, and for the benefit of a few, others must forego a part of their legitimate profits. It does not save for the State, but it favors the few at the expense of all.

In the administration of antitoxines, or in performing vaccination by public officials, except when the service is performed for those too poor to pay, harm is done to private practitioners who are thus deprived of their proper work.

If the State is to furnish free antitoxin for its citizens who are able to pay, why should it not also furnish free quinine, bread, clothing and coal? If it is to furnish free medical service, why should it not also give free tailoring?

On the other hand, the collection of vital statistics, examination of food and water, the study of the bacteriology of diseases, and the relationship of human maladies to those of the lower animals, the disposition of garbage and sewage, and the control of the spread of disease by insects, all these can only be properly conducted by a public health service.

"The signs of the times" point to a rapid change in the status and work of the medical man. Changes have already occurred within the memory of those now in active practice. Time was when the prospective physician registered with some neighboring doctor, took care of his horse and garden, assisted in a few operations, and read more or less thoroughly the few books on his preceptor's shelves. Having thus spent a few months he felt duly qualified to hang out his shingle. There were medical schools too, in which he might listen to the lectures given by the more prominent practitioners, and most embryo Aesculapians sought this means of completing their professional education. The best of these colleges required attendance at only two short sessions, and laboratory work was limited to a little chemistry and anatomy. The line between the

scientific physician and the empiric was difficult to discover, and very frequently the man, who had never seen the inside of any other educational institution above the district school, could look with pity upon his poor neighbor who struggled hard, though entitled to append "A. M., M. D." to his name.

Today the people are becoming so educated that they are realizing the difference between the man who knows, and the one who tries to look wise. The quack and imposter is finding his position less profitable and more ignoble. Our municipal, State and National health officials are making such war upon the causes of disease, that already the amount of sickness is being reduced, and consequently there is less work for the individual physician. There is no longer excuse for permitting any but the thoroughly trained to enter the profession, and those already in must keep up with the advances in the science of medicine. It is not probable that the average practitioner of twenty-five years standing shall become an expert bacteriologist; but he may become posted upon the facts of bacteriology, and make use of a neighboring laboratory. He should recognize that diphtheria and typhoid fever are the results of special bacilli, and he should know the diagnostic value of tuberculin injections. Every practitioner may make the Tallquist hæmoglobin estimation, or the agglutometer test for typhoid.

The physician of today is rightly expected to be much more thorough in his study of each individual case than was the custom a quarter of a century ago. He must have a better office equipment, and a larger library. He must have fewer cases, but spend more time upon each, and he should be paid accordingly.

As old settled States became relatively crowded, the heads of families collected their herds and other property, and pushed westward to take up new land. So for the physician of today the country is now opening for settlement the new territory of public sanitation. It promises to become the most important State in the professional country.

DR. SAJOUS AND THERAPEUTIC NIHILISM.

The admitted tendency of the profession for the past several decades to believe less and less in the efficacy of drugs in the treatment of disease is proved not only by the actual skepticism which exists among the rank and file of physicians, but also by the numerous instances in which acknowledged leaders have given expression to their nihilistic lack of faith in drug therapy. It is doubtless a fact that, for all our boasted

progress, the administration of medicines has never yet progressed any great length from empiricism, and this statement is made fearlessly, although in giving expression to such a belief, we know that we are taking chances of calling down upon our heads the wrath of those who would say that medicine is almost an exact science. There can be no question that many branches of medicine have progressed very nearly to becoming exact, but it cannot be denied that pharmacotherapy has not kept pace with the immense strides of all other branches. It is true that we are able to treat successfully, by use of drugs, diseases of which the etiology and pathology are but imperfectly understood. We know, for instance, that mercury is specific for syphilis, but beyond saying that mercury is an alternative no one is able to say how it acts.

That this therapeutic nihilism exists is due largely, according to certain writers, to the unbelief expressed in the teaching of many of those who stand at the head of our profession, chief among whom is the great Osler, who has perhaps exerted a more powerful influence, in this country at least, than any other one man. And yet it can by no means be laid entirely to his charge or to that of any other man or school. The cause is to be sought beyond any such tangible reason. According to Dr. Chas. E. DeM. Sajous, whose epoch making discoveries place him undoubtedly in the front rank of modern physicians and scientists, the real, fundamental reason for the deplorable condition into which therapeutics has fallen is to be found in what he terms the "shortcomings of physiology." He believes that "every important subdivision of therapeutics finds itself deprived of the essential physiological knowledge upon which a rational explanation of its physiological action could be poised." In other words, physiologists have failed to provide accurate knowledge of normal physiological processes which occur in the body. To take a concrete example, the lack of accurate knowledge of general metabolism makes it impossible "to interpret intelligently the physiological action of alteratives and tonics;" the action of cardiac stimulants includes as main phenomenon slowing of the heart through mechanism of inhibition," but our ignorance "of the real processes involved in inhibition" still leaves us in the dark as to how these stimulants act. Dr. Sajous laments the fact that there are no indications that physiologists will furnish the data needed to place pharmacology on a sound basis.

The shortcomings of pharmacologists, Dr. Sajous believes, to be due, not to a lack of effort, but to errors of procedure and of

interpretation in their experimental work. He enumerates among these the following: First, the belief that drugs given by the mouth, injected hypodermically or rectally, travel to the tissues and act upon them. Digitalin injected in 1-16 grain doses diluted in the blood mass would make a solution sixteen times weaker than the weakest solution that will act directly on the exposed heart. This is presented as an argument that digitalis cannot act directly on the heart muscle in producing its stimulant effect.

Second, experiments with remedies on animals under the influence of anesthetics are fallacious because of the disregard of the effect already produced by the anesthetic drug.

Third, neglect of consideration of waste products in investigation of the action of drugs which affect the cardio-vascular system has prevented a true estimate of the action of such drugs.

Fourth, the experimental employment of excessive doses in animals mislead in determining the action of a remedy.

Fifth, the belief that because certain drugs, atropine, for example, paralyze nerve endings by acting directly upon them when locally applied, produces the same effect through a similar process when given hypodermically or orally is a frequent source of error. But if the smallest dose that will wake a physiological effect when given internally be dissolved in an amount of blood equal to that in the animal the solution will be found inert. The solution is too weak and the drug has been altered chemically by the antitoxic constituents of the blood.

Sixth, the assumption that certain phenomena produced by drugs are manifestations of a normal function.

After accounting for the failure of therapeutics to keep step in the march of medical progress, Dr. Sajous does not fail to protest his belief that pharmacodynamics may yet be raised to the dignity of a science. As an exponent who represents the opposite of those nihilists who, for so long have dominated medical thought, he is far in advance of his day. A thinker, a scientist whose grasp is world-wide Dr. Sajous believes that "we should look to the auto-protective resources of the body, and the laws through which drugs influence them, for a scientific therapeutics."

EPIDEMIC CEREBRO-SPINAL MENINGITIS.

Of all the dreaded infectious diseases epidemic cerebro-spinal meningitis has heretofore been one of those, against which we have been almost defenseless. The epidemics described have been of varying degrees of severity. And in them the disease

has had a mortality varying from 40 to 60 per cent. The causative agent is the diplococcus intracellularis of Weichselbaum. The epidemics arise chiefly in the crowded slums of cities in the late winter and early spring. The theory has been advanced that the snows of the winter have allowed much filth to collect and that in this filth the diplococcus thrives. The spring thaw liberates the organism and the coryzas then prevalent offer the site of entrance to the human organism. The infection reaches the brain by way of the nasal cavities. The symptoms are too well known to need repetition here. The treatment has been various. Some believe in sodium salicylate, again others treat symptomatically. All methods of treatment in mild epidemics give fair results and all have failed in the severe form. No method of treatment has prevented the terrible sequelæ.

In 1905 Flexner, of the Rockefeller Institute, started to work on a curative serum, and in 1907 he announced a discovery of a curative serum, with the report of some 30 cases so treated. Since then some 90 other cases have been reported. The method of treatment is simple (for details see *Journal Experimental Medicine*, January, 1908). The chief things of interest at present are the results obtained. In acute cases the mortality averages 12 to 18 per cent. with no sequelæ reported. In the chronic cases the serum seems to be of little use. This is to be expected, since the lesions in this instance are the results of the destruction of tissue in the acute stage. The serum treatment is the best yet offered and the time is fast approaching when it will be as reliable a standby as the antitoxin in diphtheria.

THE NATIONAL ASPECT OF TYPHOID FEVER.

The time for the annual sacrifice to typhoid fever is at hand, and we are led to wonder how much longer this offering to carelessness and ignorance is to continue. Aside from the suffering produced annually by this disease, the expense which it entails is tremendous. Flies and polluted water supplies are the two great disseminating factors of enteric fever. How many cities have screening and stable regulating ordinances? And even when they do exist how often is it possible for health officers to secure their enforcement? The average municipality still discharges its sewage into the most convenient stream, and if any thought is given at all to the possibility of contaminating the water supply of the cities below them, mental consolation is taken in the fallacious theory of the self-purification of streams. When the water supply in question is entirely within the boundary of a State the prevention of its contamination

is the duty of that commonwealth, but if, as happens too frequently, interstate waters are polluted the case falls within the jurisdiction of the general Government. At present there is no specific Federal statute bearing on the subject of action, and did any such exist there is no adequate force with which to administer it.

When the last session of Congress adjourned it had under consideration a measure (H. R. 18792), the passage of which would go a long way toward removing a grave danger to the public health. No State function would be usurped by the enactment of this law. In fact, it would prove of the greatest assistance to State and municipal health officers in the discharge of their duties.

Typhoid fever is a wholly preventable disease, and its occurrence is a reflection upon the intelligence of a people who allow the advice of its sanitary authorities to pass unheeded. The duty of the medical profession is clear. Physicians who stand for the best in advanced medicine must be leaders of the people in a movement looking to the better sanitation of our country. They must be brought to a realization of the necessity of the enactment of laws expanding and increasing the responsibilities of the Federal Government for the health of our country as a whole, to the end that the existing Federal health service be made the nucleus around which to eventually build up an organization capable of dealing with any national health problem.

It is remarkable that an enlightened Government which has been ever ready to pass laws protecting the health of cattle, swine, etc., and to expend large sums in the protection of crops against scale, worms, weevils, etc., should be so slow in protecting the health of its people. There can be only one explanation of the readiness with which our law-givers legislate for the protection of animal health and fail to do so for the conservation of human lives, and that is that the general public is more interested in the vigor of its live stock than that of our citizens.

THE FIGHT AGAINST VENEREAL DISEASE.

Since the earliest periods of Greek and Roman history, and even before this, when Moses was leading the Hebrew nation out of Israel, the social evil and its attendant diseases have been a fruitful subject for argument and legislation. The Hebrews compelled the prostitute to distinguish herself from other women by requiring her to wear a veil. In the Greek and Roman countries the public women were divided into classes and forced to reside in a certain quarter of the city. The lower classes were

attendants in the bath houses. The upper classes were the most highly educated of the women of that day and in their salons the great men were wont to congregate. The middle classes were housed in brothels. In the ruins of Pompei may be seen carved in the portico of a brothel the sign of the profession. It was a balance; on one side of the beam was a bag of gold in the pan and on the other pan the male genitals. With the rise of Christianity and a different code of morals, the evil was pushed to the back ground and hidden. At the time of the Renaissance it came to the front again and was one of the causes of the Reformation. It is about this time that syphilis first became known by its fearful epidemics. Since then legislation on the subject has been enormous. Alternately the evil has been licensed and repressed. At present in most of the large continental cities prostitutes are segregated and licensed. In some they are also subjected to periodical medical examination.

It has remained for the Americans to attack the evil in another quarter. All previous efforts have been by edict of law, but the present plan is an attack through an education of the people. For a number of years past several committees composed of medical and lay men have discussed and formulated a plan of battle. Notices warning against the evils of immorality and explaining the physiology of sexual life have been given to groups of young men in the colleges and in young men's clubs. In the venereal classes in Dispensaries instructions as to the treatment of the diseases have been added to the above and these have been distributed to the patients.

Thousands of young men and young women are annually doomed to a life of invalidism and self-reproach, and only too often one hears the cry "Had I but known." Committees and pamphlets can do much but still more can be accomplished if each of us will put his shoulder to the wheel and in his own circle of young people caution and explain as the occasion arises. Education is rapidly helping to control the white plague; is not this plague with its greater list of afflicted as worthy of support?

PELLAGRA.

The unusual interest manifested within the past few years by many of our progressive Southern doctors in regard to this hitherto supposedly rare disease, would readily justify some sort of comment on the subject. Particularly in the South have medical men become so intensely interested in their investigations that one frequently finds the disease a theme for discussion among physicians. However, there seems to be

little accurate knowledge concerning the affection and the question is often asked: What is Pellagra? The term is derived from the Italian words *pelle*, skin, and *agra*, rough. All authorities, if indeed there are any who may be called authorities on this subject, agree in the belief that the disease is confined to the countries of Southern Europe. However, if we are to accept as authentic the cases reported by Wood, and Lavinder of Wilmington, N. C., and by M. C. Campbell of Morganton, N. C., to say nothing of those reported by numerous observers in South Carolina and adjacent States, it would seem probable that pellagra is spreading, and that cases are becoming by no means uncommon in this country.

Symptoms are said to be referable to the nervous system, alimentary canal, and skin. The disease almost always begins in the spring, with weakness, giddiness, headache, joint pains, severe burning sensation in the back and radiating to the limbs, furred tongue, tense and painful epigastrium, loose bowels and sometimes slight jaundice. The skin is affected latest. The lesions consist in an erythema which often develops suddenly appearing in the order mentioned below and generally limited to those parts exposed to the sun, viz: backs of hands, forearms, elbows, face and neck, and, in those who go barefooted, the dorsum of the foot, and sometimes the back and chest. The eruption consists of a diffuse, bright, dark or livid red erythema, which disappears on pressure unless the congestion is so severe as to be hemorrhagic, petechiæ being common and in rare instances bullæ are seen which dry up or rupture; the skin is swollen, tense, and burns or itches especially when exposed to the sun. The rash, after persisting from ten to eighteen days, subsides, becoming dark in the center and laminaceous, seldom purfurfaceous, desquamation follows, leaving the skin thickened, and pigmented. This thickening pigmentation increases after each attack up to four or five years, when atrophy sets in. The skin then dries, wrinkles and withers like that of cachectic old age, and is so thin and lax that it can be pinched up as easily as it was difficult before. The skin manifestations thus present three stages: (1) Congestion; (2) thickening and pigmentation; (3) atrophy. (Crocker).

The symptoms, after lasting up to July or August, decline, and the patient seems quite well in the winter; but with the return of springtime all the symptoms reappear. Aggravation may not be apparent until the third attack or later. The patient then becomes too weak to stand, emaciates, suffers from severe pains in the head and back, with tenderness near the dorsal vertebræ.

Insomnia is frequent; the third nerve is paralyzed more or less, and, in the majority of cases, there are changes in the fundus oculi. Sandwich found the knee-jerks increased in the early stage; at the late stage diminished and sometimes absent.

The rash may extend all over the body and the skin finally lose more or less sensibility. The tongue becomes denuded of papillæ, red and dry, there is a burning sensation in the mouth, swallowing is painful diarrhœa becomes profuse, all cerebro-spinal symptoms are aggravated, the patient is delirious, sinks into a typhoid state, and dies.

Mental depression, going on to insanity, taking the form of either mania or melancholia, is common. It is said that all pellagrous patients like to see and touch water, and the melancholia often assumes that form in which there is fear of injury and a tendency to suicide by drowning. Utter imbecility may result. Less common are epileptiform convulsions, paresis of extensors, paralysis of the whole limbs and bladder, atrophy of the heart, alkaline urine of low sp. gr.—but no albumin—dropsy and foul sweats. The disease may last ten or fifteen years, but the average duration, according to Crocker, is five years.

THE BIER HYPERÆMIA TREATMENT.

About 3 years ago, Bier of Berlin, issued a book describing his now well known "Staung's Hyperæmia." By various mechanical devices he produced in the various parts of the body, a hyperæmia venous in character. He applied this hyperæmia in a number of conditions medical and surgical with excellent results. As in all new therapeutic measures the pendulum of medical opinion is swinging to the extremes. Today it is acclaimed by all to be a panacea for all ills that flesh is heir to, tomorrow many will relegate it to the junk pile. Within the memory of men still alive calomel was looked upon as a dangerous drug. This opinion was the reaction following the abuse of the drug. History repeats itself. Today none dispute its value in judicious ways. It will be so with this new aid. The indications for the use of passive hyperæmia are many but they are sharply defined. It will work great good in bone tuberculosis for example. And it markedly influences the course of phlegmons. It will not cause the absorption of pus already formed, and it will not do away with the use of the knife. Its application demands skill in technique, in "dosage" and in picking out suitable cases. The method has been extensively tried in the thorough school of German medicine and pronounced of use. Surely anything prom-

ising better results than those so far obtained in treating disease is worthy of trial.

THE DIAGNOSIS OF INCIPIENT TUBERCULOSIS.

The diagnosis of incipient tuberculosis, that stage of the disease in which the physician can do most for the patient, has in the past two years received considerable impetus. In June, 1906, Calmette of France, announced the tuberculo-ophthalmic reaction. Calmette uses a glycerine free dried old tuberculin. This he dissolves in sterile water so as to make a $\frac{1}{2}$ and a 1 per ct. solution. A drop of the weaker solution is placed in the conjunctival sac of the lower lid, and from 6 to 48 hours, in suitable cases, a reaction appears varying in degree from a reddening of the caruncle to a conjunctivitis, with severe reaction, the formation of pus and fibrin. Should the $\frac{1}{2}$ per ct. solution prove negative, the test is repeated with the 1 per ct. in from 5 to 7 days. Some German clinicians have used as high as a 5 per cent. solution.

The results reported have been various. About 90 per cent of the suspected cases have given positive results. Some cases of typhoid fever during the height of the disease have reacted.

Attention has also been drawn to the fact that apparently normal cases which have been negative after a first test have reacted positively when the test has been repeated after 30 days. These results have as yet not been explained. It has also been found that some not suspected of tuberculosis react and that others positively tubercular do not.

Baldwin explains this by saying that in the first class there is an old healed focus, and that the body being strong in resistive power shows its strength by the reaction. In the second class of cases he says that they are only found in old advanced cases, and that the stimulus of a small added amount of toxin is not enough to provoke a reaction in a body already used to much toxin. The test should never be applied to an eye, the site of disease of any kind, for a number of cases have been reported in which this has not been heeded, and bad results varying from long continued supuration to blindness have followed.

As yet it is too soon to draw positive conclusions from this new aid. Apparently it is a big advance, especially in those cases with few physical signs. The method is so simple that every physician can use it and it would be well to bear it in mind for use when the occasion arises.

URINARY FINDINGS IN ALCOHOL.

The following is a resume of four hun-

dred and eighty-six urinalysis reports of alcoholics including color, reaction, specific gravity, presence of sediment, albumin, sugar and microscopic examination. Stress is laid particularly upon reaction, specific gravity, presence of albumin and microscopic findings; the amount voided in twenty-four hours would also be considered important.

It is noteworthy that, whereas urine is normally of slightly acid reaction, alkalinity greatly predominates among alcoholics. There were two hundred and sixty cases of alkaline urine to two hundred and twenty-one of acid reaction. Large amounts of alkaline phosphates are found in many specimens. Beer-preserved may account for some of the alkalinity as also for some of the marked digestive disturbances (witness persistent hiccough e. g.). One specimen was amphoteric and two specimens neutral.

The sp. gr. varied from 1.002 to 1.032. On account of the large amount of sediment the sp. gr. was on the whole high. There were three hundred and sixty-seven specimens over 1.015 to one hundred and eleven with sp. gr. of 1.015 or under. It was noted in the acid specimens that they were generally of lower sp. gr., the earthy phosphates being heavy:

Ninety-two reports for albumin positive were noted. In some of these only a trace was found. In forty-two examinations there were found various kinds of casts, especially hyaline and granular casts; in a few of these no albumin was present.

In a great many cases were found epithelial cells and leucocytes.

It might seem remarkable that not a single specimen contained sugar. Diabetes Mellitus is not such a common affection. Moreover, many diabetics cannot stand indulgence in alcoholic beverages, or have been cautioned against their use. As a matter of fact also, the Fehling test was not routinely applied, unless the urine was a quick light in color and of sp. gr. 1.030 or over, or unless there was some suspicion of the presence of glucose.

For the most part the specimens were rather light in color.

The most significant facts were: Predominance of alkalinity, abundance of sediments, frequency of signs of definite renal involvement and apparent freedom from sugar.

THE PHYSICIAN AND THE LEGISLATURE.

In the House of Delegates at the last meeting of the State Medical Society in Winston-Salem a number of good talks were made along the line of betterment in

the medical profession in North Carolina. Those who spoke dwelt upon the fact that as a profession we are handicapped because the Legislature has never recognized us as a factor in politics, and that our usefulness as a profession had not resulted in the greatest possible good to the commonwealth because of the lack of legislation which would enable us to do the greatest good to the greatest number.

Whatever the cause of the present attitude of our law-makers, it is a fact that the Legislature as a body has for several years past shown a decided friendliness toward irregular schools; and not only has it evinced a marked tendency toward favoring them, but it has assumed, on the whole, an open hostility toward the regular profession. Efforts on the part of certain members of the medical profession to have bills introduced which would work nothing but good for the whole State and public have been met with most belligerent enmity, and only the most strenuous and skillful work on the part of the Committee on Legislation has prevented the enactment of laws which would have proven highly inimical to the welfare of the public as well as the profession. Even with all their efforts certain bills have been passed which ought never to have been introduced.

We haven't the time to discuss the etiology of these conditions. The symptoms are evident and need little comment. But we do wish to emphasize the necessity of finding a remedy before it is too late.

There are one thousand seven hundred regular physicians in North Carolina, truly a magnificent body of men, composed of the very best and noblest of her citizens. By combining our influence and uniting our efforts we can so impress our representatives that they will not turn a deaf ear when we ask for legislation that tends to the protection of the health and lives of our people.

In the above we have embodied the appeal made in a circular letter sent out by Dr. Stanton, secretary of the State society, with the object of enlisting the support and cooperation of the doctors in North Carolina in securing the nomination of men for the Legislature who shall pledge themselves "if elected" to give the Committee on Legislation (should they go before the Legislature of 1909) that consideration to which we are entitled.

As citizens we should assert our rights and with that power of heart and brain which places the doctor among the leaders of the State, the influence which a united profession could exert in every community would accomplish many things which have never yet been attempted,

and prevented much pernicious legislation which can bring nothing but retrograde tendencies into our future.

AMERICAN PROCTOLOGIC SOCIETY.

At the recent meeting of the American Proctologic Society, the president, Dr. A. Bennett Cooke, of Nashville, Tenn., after briefly reviewing the organization and early history of the Society, stated that there has probable never been a medical organization composed of a membership drawn from such widely separated localities and so restricted as to number, which can show a similar study and unbroken record of growth, enthusiasm, and interest, increasing with each succeeding meeting. The fidelity and devotion of the individual members was in the beginning and has remained the Society's distinctive characteristic.

He then proceeded to trace some of the results which had been accomplished in the ten years of the Society's existence, chief among which was emphasized the assured position as a dignified and important specialty which is now universally accorded to proctology. "Ten years ago special instruction in this branch, with a few exceptions, was only to be had in the post-graduate institutions of the larger centers. Today the curriculum of any medical college which does not include a course on proctology is rightly considered to that extent defective and behind the times. The benefit of this new order of things to the public cannot be estimated. At the present time the average patient requires something more of the man who is to be entrusted with his case than the title of "M. D.", and as a direct consequence instances of incorrect diagnosis and misdirected treatment have become notably fewer."

The object of the Society as defined in its constitution are the acquiring and dissemination of knowledge relating to this special field. The speaker inquired if the Society was living up to the full measure of its possibilities in regard to the second object, i. e., the dissemination of knowledge, arguing that such was not the case. As the means of correcting this defect, he suggested:

1st. That an official organ be adopted or established and a full report of the scientific proceedings of each meeting published.

2nd. That the possibility and advisability of becoming a section of the A. M. A. be seriously considered. The advantages and disadvantages of the latter suggestion were fully discussed, the opinion being expressed that what the Society would lose in independence and individuality would be more than gained in the wider sphere of influence and usefulness opened up by this more liberal

policy.

The real question is not what we as individuals prefer, but what course would most certainly conduce to the advancement of the highest purposes of our organization? For after all we must remember that we are physicians before we are specialists, and that our most imperative duty has reference to the interests of our profession as a whole and to the welfare of humanity for which alone it exists.

Elsewhere in our columns, we are publishing an announcement sent out by the State Board of Health relative to the provision made by the Legislature for the treatment of Hydrophobia. The Laboratory of Hygiene in Raleigh is now prepared to furnish treatment *free* to those unable to pay for it. We hope that this notice will be widely circulated throughout the entire State for the information of our people and especially the poor. Chiefly to the late Dr. P. L. Murphy is due the credit of having originated this plan, although Dr. R. H. Lewis, the capable secretary of the State Board of Health, must be acknowledged to have worked out the plan of its accomplishment.

Editorial News Items.

Chattahoochee Valley Medical Society.

The Chattahoochee Valley Medical and Surgical Association held its fourth semi-annual meeting at Auburn, Ala., July 14 and 15. The membership of this association is comprised of many leading physicians in West Georgia, East Alabama and West Florida. The officers are as follows: President, Dr. J. H. McDuffie, Columbus, Ga.; Vice-President, Dr. J. G. Palmer, Opelika, Ala.; Second Vice-President, Dr. W. J. Love, Opelika, Ala.; Treasurer, Dr. A. J. Coley, Alexander City, Ala.

The society was called to order at 10 a. m. by the president.

Prayer, by Rev. James E. Ward, Auburn, Ala.

Address of welcome, by Dr. C. C. Thach, President A. P. I.

Response in behalf of Chattahoochee Valley Medical and Surgical Association—By A. L. Harlan, M. D., Alexander City, Ala.

The following were a few of the papers presented.

Typhoid Fever—By S. H. Newman, M. D., Dadeville, Ala. Leaders in discussion Drs. Charles L. Williams, T. L. Haralson O. M. Steadman, A. B. Bennett.

Diagnosis of Non-Malignant Tumors of Female Breast—By J. P. Watkins, M. D., Opelike, Ala. Leaders in discussion, Drs.

W. J. Love, H. S. Bruce, H. R. Slack, H. S. Muuroe.

Summer Diarrhoeas of Children—By A. L. Harlan, M. D., Alexander City, Ala. Leaders in discussion, Drs. H. T. Hamner, A. J. Coley, J. J. Winn, Hugh McCulloh.

A Study of the Last Epidemic of La Grippe, with special reference to Pulmonary, Abdominal and Nervous Complications—By A. B. Bennett, M. D., Opelika, Ala. Leaders in discussion, Drs. J. S. Horsley, A. L. Harlan, S. H. Newman, E. H. Sims.

Relapsing Fever—By W. A. Holloway, M. D., Kellyton, Ala. Leaders in discussion, Drs. W. E. Maxwell, O. S. Justice, N. B. Dean, Chilton Thorington.

Anaesthesia—By J. M. Anderson, M. D., Montgomery, Ala. Leaders in discussion, Drs. H. S. Bruce, H. R. Slack, J. S. Horsley.

Sanitation of Small Cities—By H. G. Perry, M. D., Greensboro, Ala. Leaders in discussion, Drs. C. A. Carey, A. J. Coley.

Home Sanitation in the Country—By C. A. Carey, D. V. S., A. P. I., Auburn, Ala. Leaders in discussion: Drs. H. G. Perry, T. H. Street, James J. Winn.

Some Thoughts on Psychological Therapeutics—By O. S. Justice, M. D., Central, Ala. Leaders in discussion, Drs. J. S. Horsley, J. G. Palmer, A. J. Coley, W. H. Hudson, W. E. Maxwell.

Malaria; Its Prophylaxis and Treatment—By Chilton Thorington, M. D., Montgomery, Ala. Leaders in discussion, Drs. C. L. Williams, J. S. Horsley, A. L. Harlan, A. H. Reade.

Diseases of the Gall Bladder and Appendages—By H. T. Hamner, M. D., Camp Hill, Ala. Leaders in discussion, Drs. Gaston Torrance, J. A. Goggans, W. L. Cooke, L. L. Hill.

Surgery of Gall Bladder and Ducts.—By Gaston Torrance, Birmingham, Ala. Leaders in discussion, Drs. H. T. Hamner, L. L. Hill, W. L. Cooke, J. A. Goggans.

Pericardial Effusion and Their Surgical Treatment—By L. L. Hill, M. D., Montgomery, Ala. Leaders in discussion, Drs. Gaston Torrance, J. A. Goggans, W. L. Cooke.

Abortion—By J. S. Horsley, M. D., West Point, Ga. Leaders in discussion, Drs. I. P. Motley, J. A. Goggans, J. G. Palmer, W. H. Moon.

Surgical Tuberculosis—By W. D. Gaines, M. D., Lafayette, Ala. Leaders in discussion, Drs. H. B. Discharoon, H. T. Hamner, H. R. Slack.

Bacillus Aerogenes, Capsulatus Infection, with report of cases—By W. J. Love, M. D., Opelika, Ala. Leaders in discussion, Drs. C. A. Carey, A. P. Watkins.

College Education, as is Necessary to the Study of Medicine—By Dr. Charles C. Thach, A. P. I., Auburn, Ala. Leaders in discussion, Drs. A. L. Harlan, H. G. Perry.

Medical Expert Testimony from a Judicial Standpoint—By Hon. Lawrence H. Lee, Montgomery, Ala. Leaders in discussion, Dr. A. L. Harlan, Hon. R. B. Barnes, Dr. H. R. Slack, Dr. H. S. Persons.

Glioma of Retina—By H. S. Persons, M. D., Montgomery, Ala. Leaders in discussion, Drs. T. E. Mitchell, W. L. Bullard.

Some Therapeutic Observations—By Onslow Reagan, M. D., Alexander City, Ala. Leaders in discussion, Drs. W. H. Moon, C. S. Yarbrough.

Exhibition and Demonstration of New Instruments—By W. H. Hudson, M. D., Montgomery, Ala. Leaders in discussion, Drs. J. A. Goggans, W. L. Cooke.

Corea's First Doctors.

The first class of Coreans to graduate as doctors of medicine and surgery in Korea received their diplomas last month at the hands of Prince Ito, the resident general, before an assemblage of about a thousand persons, gathered for the occasion at the Severance Hospital at Seoul.

The graduating of these young men after a full course of study at the Severance School of Medicine, established and endowed in 1900 by L. H. Severance of Cleveland, O., marked a great step in advance in the matter of education of Coreans and reflects no little credit upon its promoters.

The Pan-American Medical Congress in Guatemala.

Several American physicians sailed from New Orleans July 30th, on the steamer Preston, for Guatemala, where they will attend the Pan-American Medical Congress in Guatemala City, beginning August 5th. Tropical fevers will be one of the topics of discussion. Among those who sailed are:

Dr. G. M. Guiteras, United States Public Health and Marine Hospital Service; Dr. Samuel Sherwell of Brooklyn, Dr. R. Winslow of Baltimore; Dr. Garcia Lees of New York, and Dr. W. F. Shuttles of Dallas.

Decrease of Insanity.

Improved sanitary arrangements, better rations, clothes and medical attendance are credited with a remarkable decrease in the number of cases of insanity in the worldwide service of the government. When American rule was established in the Philippines the number of soldiers sent home insane was startling. Now it is constantly growing less. The canal zone used to be a

breeding place for insanity, but now it is almost unknown there. A few years ago the big government asylum was fast being outgrown, but its population is steadily decreasing.

The Telfair Sanitarium.

This new Sanitarium, located in Glenwood Park, Greensboro, N. C., will be open for patients August 1st. The Sanitarium will contain about thirty individual rooms which will be modern in all their appointments. The institution will be equipped with the most modern appliances, consisting of high frequency, and vibratory machines, electric light baths, and a complete hot and cold water bath system. The Hospital and Sanitarium is ideally located in a fine grove in close proximity to a large private park, and is one of the most picturesque, retire, and restful locations in the city.

Greensboro was selected for a location because of its central location, and its easy accessibility from all points on account of its splendid railroad facilities. It is the purpose of the management to treat all non-surgical cases, and a special ward will be set apart for a lying-in department, as well as a general ward where the patients may be treated by their own physicians or by the regular Hospital and Sanitarium staff.

The building will have isolated apartments for the treatment of chronic alcoholics and drug habitués. The manager also proposes to furnish a home for those chronic nervous cases, who may be seeking a quiet and restful environment.

Doctors as Opium Eaters.

In a recent report forwarded to the American representative of the International Opium Commission at Washington, D. C., City Detective Richard Kelly declares that the use of opium in Pittsburg, Pa., is confined almost entirely to "thieves, gamblers, disorderly women, physicians and ministers." About 5 per cent. of the physicians practicing in that city are addicted to the opium habit, he says, and he is convinced that the drug is not used to any extent by others occupying good social positions.

Dr. Lawrence Litchfield, who is president of the Allegheny County Medical Society, depreciates Detective Kelly's report, and says he most emphatically does not believe that 5 per cent. of Pittsburg's physicians are opium eaters. It is true that doctors, lawyers, ministers, and other professional men are more liable to become addicted to the use of drugs than mill workers or laborers, but constant association with the city's physicians convinces him that the report is exaggerated.

The First Congressional District Medical Society of Georgia was held in Savannah July 10th, with about one hundred delegates from the different sections of the district in attendance. The program was a long and interesting one. Several entertainments were given the visiting doctors, among which were included a dip in the surf at Tybee and a luncheon.

The most interesting discussion of the meeting was the "Examination before marriage" bill, that is now pending in the Georgia State Legislature. Dr. T. D. Coleman is president of the association.

Tuberculosis.

No teacher, student or employe infected with tuberculosis will hereafter be admitted to the class rooms or buildings of the University of Utah. Such is the decree promulgated recently by the regents of that institution. The disease has not obtained a foothold at the university, but the recent death of an instructor which proved to be due to tuberculosis, called attention to a danger that the authorities are determined to abolish.

New Hospital in Pensacola, Fla.

A new hospital is shortly to be built in the city of Pensacola. Drs. McMillan, Quina and Hutchinson are the promoters.

Richmond Academy of Medicine and Surgery.

With the usual attendance, the regular meeting of the Richmond Academy of Medicine and Surgery was held July 15th, at the T. P. A. building, Third and Main streets. The first paper on the program was read by Dr. A. G. Brown, on "Etiology and Significance of Arterio Sclerosis." It was discussed by Drs. Nichols, Vanderhoof, Gray, Hodges and Walton. The second paper was by Dr. John P. Davidson on "Changes in the Eye Grounds," and was discussed by Dr. A. C. Miller.

Reduction in Typhoid.

Reports from army medical officers on duty in Cuba show a decided reduction in the typhoid fever rate since 1906. In other respects, the statistics show that the general sick rate in Cuba during the past year is as favorable as that of this country, an improvement due to the health regulations enforced under American administration.

Doctors Have a Dutch Treat.

The members of the medical fraternity of the city of Durham, N. C., and county of Durham, sat down to a barbecue and Brunswick stew at Lakewood Park, on the evening of 23rd of July. There was plenty of good things to eat and drink and

the doctors, with the few friends who were invited had a fine time. Supper was served to about thirty-five people. It was a treat that the local physicians gave themselves.

Dr. Bradford Injured.

Dr. Kenneth Bradford of Birmingham, Ala., on July 10th, was painfully injured about the face when some carbolic and nitric acids that he was working with in his office in the First National Bank building, exploded. The doctor may lose both of his eyes.

Dr. E. F. Stewart, of New York City, has been elected by the board of trustees, professor of anatomy and physiology of Wake Forest College, N. C. He will succeed Dr. Lewis M. Gaines, who has resigned to practice his profession in Atlanta, Ga. Dr. Stewart, who has recently married, is only 28 years old, and comes to North Carolina highly recommended.

Insanity Among the Negroes

Attention has recently been called to the fact that there are a great many more crazy negroes in Louisiana than there were a few years ago, and that the rate of increase of insanity among the colored population has been much larger than with the whites.

There are now more than 177 patients in the two insane asylums at Jackson and Meridian, and more than one-half these are negroes. The trustees of the asylum have been compelled to enlarge the quarters set aside for the negroes very materially, and they are still crowded. Various reasons are assigned for this increase, but the most plausible are that the negro, being thrown on his own resources since the proclamation that set him free, has gone crazy trying to think how to make a living, and the excessive use of opium. "Dope fiends" are to be found in every city and town in the State, negroes predominating. There are those who are said to have grown rich selling the seductive drug, negroes being their chief customers.

The State of Louisiana has found it necessary to enact strenuous laws against the sale of this drug, but, like the pistol-toting habit, it is impossible to break it up.

To Amalgamate Colleges.

An amalgamation of the several medical colleges of Louisville, Ky., under the name of the University of Louisville was effected July 18, when the members of the faculties of the Louisville and Hospital Colleges of medicine, the Kentucky School of Medicine and the University of Louisville met and signed the agreement which finally merged the schools.

The officers will be announced later, but it is believed that Dr. J. M. Bodine will be elected president of the university and Dr. Chas. W. Kelly, dean. The faculty of the university will consist of about 75 of the leading physicians and surgeons of Louisville.

All of the buildings now in use by the three colleges in Louisville will be utilized by the university. The new school will be thoroughly equipped and will start off this fall with an enrollment of about 700 students.

June Bulletin of the North Carolina Board of Health.

The bulletin of the State board of health for June has appeared and its report made by the secretary, Dr. Richard H. Lewis, is full of interest. He refers to the efforts being made to look after tuberculosis and says that the State sanatorium authorized by the Legislature, is to be on a site as nearly ideal as can well be imagined in the Cumberland county sand hills about eight miles from Aberdeen. Work has begun on the buildings and Dr. Brooks, the superintendent, hopes to be able to receive patients in the early autumn.

The bulletin has a good deal of information about smallpox, which was somewhat more prevalent than during the preceding year, there having been 2,011 cases and 8 deaths, this being an increase of 43 deaths over the previous year. Now conditions are exactly reversed from what they were a year ago, for during the past season this disease has been much more prevalent among the whites than among the negroes. Each year there have been 48 infected counties. The disease has now been prevalent ten years in North Carolina and as it has continued generally in a mild form, it has given but little concern and has practically not interfered with business. The County of Johnson led in the number of cases, 150, Wilkes having 123, Guilford 101, Chowan 100, Cabarrus 89 and Alamance and Jackson 75 each.

The most important work of the year of the board of health has been the refitting of the State laboratory of hygiene, and the director of this is to also have charge of the preventive treatment of hydrophobia, which will be a great help to people who cannot afford the expensive treatment of the various Pasteur institutes.

Fifth District Medical Society of Georgia.

The midsummer meeting of the Fifth District Medical Society was held in Decatur on the 30th of July.

The officers of the Society are: President, Dr. T. R. Whitley, Douglasville; vice president, Dr. E. G. Jones, Atlanta; secretary-treasurer, Dr. J. Ross Simpson, Atlanta.

The following program was closely followed: Invocation, Dr. J. G. Patton, Decatur; address of welcome by the mayor, Hon. J. A. Montgomery, Decatur; response to address of welcome, Dr. H. M. Smith, Edgewood; address by the president of the Medical Association of Georgia, Dr. Thomas D. Coleman, Augusta, Ga.

Papers were read by the following physicians: Willis Jones, Atlanta; Floyd W. McRae, Atlanta; J. L. Campbell, Atlanta; Marion McH. Hull, Atlanta; John C. Olmstead, Atlanta; C. M. Curtis, College Park; Louis C. Roughlin, Atlanta; Stewart R. Roberts, Atlanta; R. B. Ridley, Jr., Atlanta; A. W. Sterling, Atlanta; F. Phinzy Calhoun, Atlanta; A. G. Hobbs, Atlanta; R. B. Kime, Atlanta; J. V. P. Oglesby, Atlanta; Archibald Smith, Atlanta; E. C. Davis, Atlanta; L. S. Fisher, Atlanta; J. M. Crawford, Atlanta; E. G. Ballinger, Atlanta; E. C. Cartledge, Atlanta; M. B. Hutchins, Atlanta; R. R. Daly, Atlanta; J. A. Bell, Lithonia; J. M. Tribble, Lithonia; C. R. Andrews, Atlanta; J. B. S. Holmes, Atlanta; J. A. Guinn, Conyers.

Dr. Jesse Davis Riley.

Dr. Jesse Davis Riley was married to Miss Lina Elizabeth Sims on June 30th, at the home of Dr. & Mrs. Richard Wilkinson, Augusta, Ga. Dr. Riley is from Haddock, Ga., where he and Mrs. Riley will make their home.

Deaths.

Dr. H. V. Dunston.

Dr. H. V. Dunston died at his home in Windsor, N. C., on July 1st, at about 70 years of age. He was a prominent and useful physician. He graduated from the Medical College of Virginia, Richmond, Va., 1862, and was an active practitioner for over forty years.

Dr. R. A. McFerrin.

Dr. R. A. McFerrin, of Olive Springs, Tenn., died at his home on July 4th. He was a well known physician of East Tennessee.

Dr. Philip A. Fitzhugh.

Dr. Philip A. Fitzhugh, of Machipongo, Va., died at his home on July 22nd. Dr.

Fitzhugh was one of the most successful and skillful physicians of Northampton county, Va., where he practiced for about forty years.

Dr. W. W. Grubbs.

Dr. W. W. Grubbs, of Enterprise, Ala., died at his home on July 19th. He was a graduate of Louisville Medical College, Louisville, Ky., class 1890. He was for a number of years a very prominent physician of Coffee county, but retired from practice a few years ago, on account of ill health.

Dr. B. F. Rea.

Dr. B. F. Rea, of LaFayette, Ala., died at his home on July 23rd. Dr. Rea was a graduate of Jefferson Medical College, Philadelphia, Pa., class 1842. He was for many years a very prominent physician in his State, but retired from practice several years ago on account of his advanced age. He was 90 years old when he died.

Dr. Dan Newcomb.

Dr. Dan Newcomb died at his home, four miles east of Ocean Springs, Va., on the 12th of July. Dr. Newcomb was formerly from the North. He was a very successful practitioner for a number of years in Ocean Springs, but retired from practice a few years ago on account of his health. He was seventy-nine years of age.

Dr. R. A. McFerrin.

Dr. R. A. McFerrin died at his home at Olive Springs, Tenn., on the 4th of July. He was a very prominent citizen of East Tennessee.

Dr. W. H. Timmerman.

Dr. W. H. Timmerman, of Batesburg, S. C., died at his home on July 14th, of pneumonia, in his 77th year. He was a graduate of the Medical College of the State of South Carolina, Charleston, S. C., class 1854. Dr. Timmerman was a very prominent citizen as well as a highly esteemed citizen of his State.

Review of Southern Medical Literature

The Mobile Medical and Surgical Journal, June, 1908.

The Significance of Albumin and Casts in the Urine.—Dr. J. N. Furniss believes that the presence of casts in the urine is not necessarily a constant finding. After a prolonged anæsthesia, especially ether anæsthesia, the urine will contain large numbers and varieties of casts for several days. In persons past the age of forty, the hyaline cast, when unassociated with albumin, or without any definite circulatory

disturbance, is of little pathologic consequence. The most usual condition in which the hyaline cast is found is in interstitial nephritis, and usually it is associated with the finely granular cast. The granular casts are either finely or coarsely so. They are indicative of degenerative process and are most frequently found in the acute, subacute, and convalescent forms of nephritis. The waxy cast is of large size and yellowish. It is observed in amyloid kidney in chronic parenchymatous nephritis. In the last named disease its detection is considered a grave prognostic sign. The fibrinous cast is similar to the waxy but has a brown pigment. It is found in active and subsiding inflammations of the kidney—especially in acute Bright's disease. Blood casts point to a decided inflammatory or hemorrhagic condition of the kidney. Fatty casts occur where there is decided degenerative process of the kidney. Epithelial casts indicate desquamation. Pus casts which are in reality hyaline casts covered with leucocytes are found in purulent conditions of the kidney mucus cylindroids are not true casts.

The Incubation Period of Malaria.—

Dr. E. V. Caldwell states that the incubation period means the time elapsing from the time of the inoculation with the malarial organism until the malarial chill. The incubation period of malaria has been approximately arrived at first by the inoculation from the punctures of an infected mosquito, and second, by the inoculation with infected blood intravenously and subcutaneously. The incubation by this method can be made longer or shorter according to the amount of blood injected. After giving in detail his own experiments and experience, along with that of many other investigators, he concludes that the periods of incubation for the different varieties approximately to be for the quartan 14 days; tertian 11 days, and for the aestivo-autumnal 6 days.

New Orleans Medical and Surgical Journal,
June, 1908.

The Evolution of Radiotherapy.—Dr. L. L. Cazenavette in his abstract and translation of Dr. Beclere, says that the Roentgen rays may be said to have a specific action on neoplasms, since there is no other known agent, chemical or physical, capable of such action on epitheliomas. In this case the epitheliomatous cells have been destroyed by doses which have left intact the surrounding skin. The general law governing this action is probably of chemical order, but is still unrecognized. Neoplastic cells are notably more sensitive to

the action of the Rontgen rays than the neighboring cells. Their sensibility varies greatly within very broad limits. The greater number of epitheliomas, whatever be their historical nature, are amenable to radiotherapy. They are thereby definitely cured, provided the total dose of the rays absorbed goes notably beyond the strictly sufficient dose for an apparent cure. This does not mean that they are all cured by radiotherapy and that surgical intervention is not to be preferred to it, particularly so in cases of rapid evolution where the deeper parts are involved.

Tuberculosis of the Skin.—Dr. H. E. Menage concludes his paper with the following on prophylaxis in this disease: A lupus subject may not only convey lupus as such to another victim by direct inoculation, but may be the responsible source for a general and visceral type of the disease. When possible the lesions of lupus should be protected and the dressings either sterilized or destroyed by burning; the hands of those who come in contact with the patients should be washed soon afterward. Due care should be exercised to prevent inoculating the mucous membranes of the body, particularly that of the nose, mouth, and conjunctiva. The attendants upon a case of lupus or those living in the house suffering from acute or chronic inflammations of the naso-pharynx should exert all possible care to prevent infection and attempt to restore their mucous membranes to a normal condition as promptly as possible. Cleanliness after contact with tuberculous material is positively the best prophylactic measure to be remembered and accounts for the small percentage of local tuberculosis found in medical students, operators and pathologists who come in contact so promiscuously with the tubercle bacillus.

The American Practitioner and News, June,
1908.

Neurasthenia and Its Relations to the Drug and Liquor Addictions.—

Dr. F. F. Young regards neurasthenia as a direct cause of alcoholism as well as the various drug addictions. The nervous unrest and the nervous teasings that continually haunt the individual who is a profound sufferer of neurasthenia, that condition of the exhaustion of the whole cerebral cellular mass, calls for relief, and relief will and must be had. Some seek the physician for relief, but the vast majority seek relief of their own accord, and during their greatest suffering of nerve teasings and unrest they seek a stimulant of some kind, usually some form of alcohol. The temporary stimulation brings relief and they seek continuous stimulation, not because they want it but

because they want relief from something they cannot explain—something worries them. In other words, they seek relief from the nerve teasings or nerve unrest, the result of exhausted brain cells. They continue to seek this relief until they become addicted to whatever stimulant they have chosen, be it liquor or drugs.

Effect of Alcohol on Protoplasm.—Dr. E. S. Allen believes that not only does alcohol produce a state of cell paresis by overstimulation which allows the katabolic products to accumulate to the extent to influence molecular change, but the alcohol combines chemically with the protoplasm, contracting the stroma and modifying the hyaloplasm until there is a cell in pathological relation to its former self. It loses its valence for food stuffs, it is unable to throw off the katabolic products, it makes a pathological enzyme, it is at the mercy of toxic invasions, its bacteriolytic property is modified, combustion is lowered and thermogenesis lowered. Alcohol in smaller doses frequently repeated so irritates the connective tissue as to cause both hypertrophic and hyperplastic changes which sooner or later organize and produce, or predispose, degenerative changes by mechanical strangulation of the parenchyma of organs. The nutritional changes which take place in the blood vessels of a reparative or protective nature lessen the elasticity of the vessel and interferes with muscular contraction and increases cardiac labor, at the same time limiting its blood supply.

The Southern Clinic, June, 1908.

Backache in Women.—Dr. W. T. Mares believes that any abnormal function of the uterus or ovaries may cause a neuralgia that will find expression in the back. It should be remembered that branches of the sacral nerves have a direct uterine connection, and pain may also be reflected to the back by branches of the inferior hypogastric and ovarian plexuses of the sympathetic. Another cause of a painful and weak back is a passive congestion at the root of the spinal nerves in the sacral and lumbar regions. Backache is one of the constant symptoms of hysteria, and women of neurotic temperament nearly all complain of a weak back and tender left ovary. Sometimes backache is a neurosis pure and simple and no anatomical basis for its evidence. A temporarily deranged condition of the uterus and adnexa may establish the "pain habit" which may persist long after those organs have regained their tone and function.

The Sigmoid Factor in Constipation.—Dr. E. A. Hamilton says that in a certain

per cent. of intractable cases of constipation organic changes in the wall of the sigmoid is the controlling factor. The change in the gut occurs in the submucous and muscular coats and consists of a round-celled infiltration of these coats which subsequently contracts, thereby to a greater or less extent narrowing the lumen of the bowel. The contraction of this connective tissue so narrows the calibre of the sigmoid that constipation of an obstinate type must result. It may also involve the descending colon. In addition to the contraction of the gut it loses its resistance, which further adds to the difficulty of the passage of fecal debris. The etiological factor is the absorption of bacteria and toxic products from the sigmoidal contents. The whole process is chronic, several years being required to bring on the condition. Surgery offers the only relief, and anastomosis must be affected by any surgical procedure between the unaffected portion of the intestinal tract above and below the lesion.

Virginia Medical Semi-Monthly, June 12th, 1908.

Treatment of Ante-Partum Eclampsia.

—Dr. J. F. Winn in this paper points out the following as the fundamental principles of dilatation: In cases where convulsions are accompanied by partial dilatation of the cervix the bimanual dilatation finds its widest range of application there special stress is laid on the fundamental principles upon which its success so largely depends.

1. Under no circumstances should extraction be attempted until the internal os has been completely dilated; and when full dilatation has been secured, continue efforts at dilatation a few moments longer to produce complete relaxation of the cervical ring before extracting the fœtus. The failure to observe this injunction incurs the most imminent risk of rupture of the lower uterine segment as well as the death of the child.
2. It is equally important that dilatation shall be gradually performed. Any attempt to score a record for complete dilatation in a specified time, as in "an hour" or less time without a preliminary softening or relaxation of the cervix must be condemned.
3. Suspend all work at dilatation when the cervix contracts around your finger, resuming efforts when the cervical ring begins to relax.
4. Imitate nature's method by pulling somewhat downward, while at the same time pulling at right angles to the cervical axis.
5. Be sure that the fingers are carried well up within the internal os, remembering that the natural method starts with dilatation of the internal and stronger ring.

The Pathogenesis of Tabes Dorsalis.—

Dr. F. A. Williams says that the tabetic symptoms referable to the sympathetic do not differ from those produced by experimental section of the spinal roots, nor from those in syringo-myelia, which, however, attack the cell bodies in the intermediolateral column. The anterior roots are not unaffected; but the relative absence of serious myopathies early in the disease is accounted for by the rapid regeneration of the fibres. This is shown by the "terminaisons croissances" exhibited by Nagotte's preparations and by the results of section experiments. Finally evanescent lymphocytosis and reflex iridoplegia, the two most characteristic signs of tabes, are found in many cases of syphilis without other tabetic symptoms. The contention of Babunski and Nagotte is therefore accepted that a chronic syphilitic meningitis is responsible for what has been called tabes dorsalis. Cases taken early can be completely arrested; and in all cases the active manifestations may be resolved if adequately treated before the destruction of the noble elements has occurred.

The Texas Medical News, March, 1908.

Spinal Puncture.—Dr. E. H. Beall believes that lumbar puncture is of greatest service in the diagnosis and treatment of cerebro-spinal meningitis. By this means if meningitis of whatever cause may be determined by finding the organism be it meningococcus pneumococcus, streptococcus, influenza or typhoid bacillus and from this know something of the prognosis. The pneumococcal cases all die, the others vary in their respective mortalities. The good effect results partly from relief of the increased pressure and partly from the relief of bacteria and their toxic products. It should be performed symptomatically as indicated every one, two, or three days. Forcheimer, in discussing the treatment of meningitis, well expresses the results of lumbar puncture: "Foremost I place lumbar puncture, for in ordinary cases the whole picture is thereby changed; the headaches, the delirium, the convulsions, often the coma disappears; the fever is reduced, the general condition of the patient is materially improved and the mortality lessened."

X-Ray and Electro-Therapeutics.—The Action of X-Rays Upon the Skin.—Dr. J. M. Martin says that two forms of dermatitis, acute and chronic, will be observed. The former may occur after one or two days, or it may be twenty or thirty days. The first visible symptom is an erythema with intense itching which may be followed in a few days by vesicles. Preceding the ery-

thema a browning of the epidermis may occur. The hair may fall before the stage of erythema is reached and sometimes before pigmentation is noticed. Hair that has been removed by the X-Ray short of marked erythema will return again more vigorous than before. First degree dermatitis or mild erythema affecting only the epidermis will be of short duration. Erythema of the second degree is more stubborn. While it resembles a severe scald it is very slow to heal. The deep layers of the skin and the subcutaneous tissues are affected. For a considerable time after the treatment is discontinued the destructive processes appear to continue. The injury is very painful and resists all methods of treatment. The chronic occurring in operators the result of frequent short exposures produces constant irritation. The hands being most commonly affected. The nails become brittle then and often split or present linear striations or furrows. Later a severe itching sensation is experienced. The skin cracks, serum exudes, the nails are frequently shed. The skin becomes hard and warty, the result of an excruciation.

Virginia Medical Semi-Monthly, June 26, 1908.

Psychotherapy.—Dr. P. C. Hunt believes that the three cardinal symptoms of nervousness are dyspepsia, constipation, and insomnia. The dyspeptic in a large per cent. of cases is depressed, and this condition is suppressed by moral means. It is best to put him on a milk diet for six days, studying the case during the interval and changing to a full diet on the seventh day. Constipation is cured by appealing to a man's reason and having a fixed hour to answer nature's call. Insomnia is cured by removal as far as possible of the worries and cares that the patient takes to bed and imbued with the faith that he will sleep. The psychotherapy is to explain with patience and gentleness the symptoms to our patient and make him understand things; to have the patient surrounded by those who understand the nature of the treatment and will co-operate with the physician in securing a cure. The nervous patient seeking advice at hospital after hospital and met by the exclamation "you are nervous, control yourself," like a drowning man ready to seize at a straw, and prepared to welcome any treatment suggested, is indeed a worthy object of sympathetic care.

The Nature and Treatment of Fever.

—Dr. W. S. Gordon believes that supplementary to the use of water sudorifics can be employed with marked benefit. Spirits of nitrous ether, solution of acetate of

ammonium, the neutral mixture, ipecac, alcohol and other drugs acting upon the sweat centers or glands meet the indications for physiological reducers of fever. Heat-production must be lessened and heat-regulating centers controlled. Knowing little about the centers we are quite limited in our means for their control; but bearing in mind that the function of the centers is more disturbed in a warm than a cool temperature we can place the patient in a comparatively cool room. Drugs which diminish heat production by influencing tissue changes and oxidation are true antipyretics; to which class belong quinine, salicylic acid, some of the salicylates, digitalis, veratin, hydrochlorate of kairin, and antypyrin and its related coal-tar products. These drugs have their place but ought to be carefully administered. Coal tar derivatives in the early stages of high fever when the pulse is strong and bounding and the skin dry, their prompt and beneficial effects cannot be denied, but used continuously when the temperature is comparatively low, the pulse frequent and the heart muscle in danger they are capable of doing irreparable damage.

The Value of Morphine Derivatives in Ocular Therapeutics.—Dr. W. Fox gives the following summary of his experience with Dionin (ethyl-morphine hydrochlorate):

1. Ethyl-morphine hydrochlorate may be used in a solution of from 1 to 10 per cent., or in an ointment or powder form. It is an analgesic and not a local anesthetic.
2. It is most valuable when combined with atropin in painful acute iritis and iridocyclitis, and it assists in breaking synechiæ and relieving pain.
3. It is of value in recent corneal opacities, but its value is doubtful in old opacities.
4. It is of some benefit in recent vitreous opacities, but its use is doubtful in chronic hyalitis.
5. It is doubtful whether it is of use in detachment of the retina.
6. The author has made repeated applications in secondary capsular cataracts but has noticed no exceptionally rapid clarification of the pupillary space.
7. It affords no special aid in the absorption of the lens matter in a soft cataract after needling.
8. It is not necessary, as a rule, to confine the patient in bed during the treatment.
9. The reaction is violent after the first three injections, but it subsides in about an hour's time.

Treatment of Placenta Previa.—Dr. M. D. Delaney refers to four varieties of this dreaded condition, viz: Central, partial, marginal and lateral implantation. In the central and partial varieties the hemorrhage begins early in pregnancy and is, as a rule,

frequently repeated, and during labor these varieties are more dangerous than the hemorrhage occurring in the other two varieties—marginal and lateral. The central variety of placenta previa offers many obstacles during delivery; first, by preventing the descent of the child, and secondly, by preventing the efforts of the physician in reaching the child to extract it. It is seldom that serious consequences occur before the seventh month, and if obstetricians were consulted when the first symptoms develop they could perhaps be better able to ward off any serious consequences to the mother and child. Post partum hemorrhage happens after placenta previa more often than any other class of cases. There is one class of cases where ergot is not contra-indicated during delivery. In these cases it seems to produce a beneficial effect and gets the uterus under better control, if administered during delivery, with less chance of post partum hemorrhage.

Gaillard's Southern Medicine, June, 1908.

Uses of the Stomach.—Dr. M. O. Burke regards the stomach as not only a reservoir but also a factory, a chemical laboratory, a mill and sometimes a brewery. The mucous membrane of the stomach has a wavy arrangement, dipping down here, and there forming little crypts. These crypts are covered with columnar epithelium. At the bottom of the crypts and opening into them are tubular glands. These tubes are lined with columnar epithelium or cells which present a granular appearance. These cells are known as the chief or central cells and they are the manufacturers of pepsinogen and rennin. In the cardiac portion between the chief cells and the basement membrane one finds a few large, oval cells which have a special duct or space opening into the main duct of the tubule. These are known as the parietal or oxyntic cells. They manufacture the HCl, and are found only in the cardiac end of the stomach. Then we have the goblet cells of the crypts and the portion between the tubules which secrete the mucus—the lubricating factory, and it is through these cells that absorption takes place.

Some Reflections on Scientific Mechanotherapy and So-called Osteopathy.

—Dr. V. Ulrich says that the osteopaths believe that every disease is due to a lesion that is originated by a dislocation, twisting or bending of a bone, preferably the vertebrae, from the atlas down to the coccyx. By correcting the displacement pressure on the nerves is released, thereby the lesion is cured, and the patient takes his bed and walks away. According to one of the

authorities in this profession malaria is a disease which although due to the activities of a specific germ, the hematozoon of Laveran, yet presents marked bony lesions which account for the manifestations of the germ within the system(!). The four immortal laws of Koch seem not to be taught in osteopathic schools. If there are lesions in the presence of the germ, the germ must be the causative factor; or perhaps from an osteopathic point of view, the lesions produce the germ. The statement should be proved by cultivating the germ, injecting the pure culture in a series of subjects and producing besides malaria, the osteopathic lesions. Should you like to know the exact location of the malarial lesion, it is a marked deviation of the 9th and 10th dorsal vertebrae and a resulting downward luxation of the tenth rib. (Sic). The author forgets to tell us whether the deviation of the vertebrae is to the right or to the left.

The Rheumatic Cycle in Childhood.—

Dr. G. T. Grinnan points out that the forms of rheumatism in children are so varied that one has to be continually on the watch for some new development. It is also true that often one of the protean manifestations points to rheumatism. Another manifestation of rheumatism, recorded far more frequently by English than American authors, is the presence of subcutaneous teadinous nodules. They are described as "oral semi-transparent fibrous bodies like boiled sage grains." They are more frequently found over the malleoli, about the back of the elbow, and near the patella also over the vertebrae and scapulae. They vary in size from a minute point to the size of an almond. They are fairly movable and appear and disappear for weeks. They are more readily felt than seen; they can be seen if the skin is drawn tight. Anemia is present both during and after rheumatism. A common error is to mistake the endocardial murmur of rheumatism with its accompanying anemia for the bemic murmur of simple anemia. It is significant to remark that cervical adenitis, when prevalent and not tubercular, is relieved by large doses of salicylate of soda.

Nashville Journal of Medicine and Surgery,
June, 1908.

Items of Interest.—Dr. E. S. M'Kee. Packing which has dried in wounds causes much pain on removal. Avoid this by soaking it in peroxide of hydrogen.

The removal of plaster of Paris bandages is sometimes a matter of considerable difficulty to the physician and pain and anxiety to the patient. Avoid both by painting with a brush a line of acetic acid where you

wish to cut. This renders the hard plaster quite soft and easily cut with an ordinary knife.

Skimmed milk, an exclusive diet, persevered in for months is most beneficial in Bright's Disease. Taking eight to ten pints a day with no other food, will eliminate sugar from the urine in many cases. A warm glassful taken on retiring at night will often prevent night sweats. Four to eight glasses taken daily and hot will increase the weight and strength and lessen the cough diarrhoea of the patient affected with tuberculosis.

Book Notices.

Medical Gynecology. By S. Willis Bandler, M. D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Octavo of 675 pages, with 135 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$5.00 net; Half Morocco, \$6.50 net.

The demand for a work dealing with the non-operative side of gynecology has been most admirably and efficiently supplied by this volume just completed by Dr. Bandler. Many of those who have been privileged to hear his lectures and attend his clinics at the New York Post-Graduate Medical School and Hospital will welcome this volume since it consists, with considerable elaborations, mainly in a grouping of his clinical lectures. The various topics are viewed from the standpoints of the symptoms, the disease the bimanual and microscopic findings, and the general physical and nervous state.

The knowledge gained from the study of diseases of women from these difficult points of view gives a more distinct mental picture and furnishes logical coordinated conclusions. Repetition and reiteration emphasize important points and make each section complete in itself.

Operative procedures are viewed only as a last resort in those numerous conditions where medical measures can accomplish so much. Every doctor realizes that in no field of medicine is conservative treatment of greater value. Combined with this, there is needed a knowledge of the relation of normal and pathologic genital functions to the general and psychic health of woman. The author has therefore endeavored to show the relation which pelvic abnormalities really bear to the physical and mental state of the female, in order that the doctor may deal intelligently with gynecologic diseases and not confine his diagnosis

and therapeutic methods to the pelvis.

The book is copiously and handsomely illustrated with original cuts, thus enabling the reader to understand more clearly and to grasp more thoroughly the various disease conditions and the procedures recommended for examination and therapy. The general practitioner will find the book a great source of help in his daily work.

Transactions of the Tenth Annual Meeting of the American Gastro-Enterological Association Held at Atlantic City, New Jersey, June 3-4, 1907. Chas. A. Aaron, M. D., Detroit, Mich. Secretary.

A collection of highly valuable articles by America's best specialists in this particular line.

International Clinics. A Quarterly of Illustrated Lectures and Especially Prepared Original Articles on Treatment, Medicine, and Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and other topics of interest to Students and Practitioners. By leading members of the medical profession throughout the World. Edited by W. T. Longcope, M. D., Phila., U. S. A., Volume II. Eighteenth Series, 1908. Philadelphia and London: J. B. Lippincott Company, 1908:

A large number of most excellent articles have been published in this volume covering many fields of medicine and surgery. The doctor who regularly receives this publication can assure himself that he is getting the very best work of the highest authorities of every country.

Consumption, its Prevention and Cure Without Medicine, with Chapters on Sanitation and Prevention of Other Diseases. By Chas. H. S. Davis, M. D., Member of the New Haven County Medical Society, Connecticut State Medical Society, American Health League, etc. Second Edition. Revised and Enlarged. 12mo. 216 pages. Postpaid, \$1.00. E. B. Treat & Co., Medical Publishers, 241-243 West 23d Street, New York.

While so many works on tuberculosis theorize upon the subject, this one shows how it can be treated, and in the large majority of cases cured, without the use of drugs and largely through the patient's own efforts. The author emphasizes the vital necessity of an open air life and a rational system of diet, holding the belief that, until nutrition is improved, little can be hoped for. It is a practical treatise on the subject and leaves nothing to be desired, as all

the essential points are thoroughly covered.

The large sales of the first edition and the cordial reception given it is guarantee enough that the book is worth while. Numerous additions are to be noted, and several entirely new chapters are incorporated. Among these are chapters on Bovine Tuberculosis, the Use of Milk, General Tuberculosis, Marriage and the Offspring, and also a list of Tuberculosis Sanatoriums in the United States.

Golden Rules of Dietetics. By A. L. Benedict, A. M., M. D., Buffalo. C. V. Mosley Medical Book and Publishing Company. St. Louis, Mo. Price, \$3.00.

Dr. Benedict is well known as the author of "Practical Dietetics," a book which has proved itself of great value to the doctors and nurses. The author realizes the impossibility of reducing the manifold problems of dietetics to a rule of thumbs which could be followed literally without regard to environment, personality or circumstance. Nevertheless he has found it possible to present the general principles and details of the science and art of dietetics in the form of succinct rules for guidance. And while the writer has followed this general plan he has not hesitated to depart from it whenever a table or summary would more thoroughly and clearly emphasize the point he wishes to make.

The work is just the thing for the busy, active practitioner who demands information stripped of the great mass of scholastic scientific research so often obscures the real value of a book. It is practical, up-to-date and original. The reader will find analytic tables of foodstuffs; diet lists and rules for infant feeding in various diseases.

Subcutaneous Hydrocarbon Protheseses. By F. Strange Kolle, M. D. The Grafton Press, New York. Price, \$2.50.

The importance of that branch of cosmetic surgery which is discussed in this small volume is undeniable. So far literature on the subcutaneous injection of paraffin for the purpose of remedying facial defects has consisted chiefly of small detached papers and reports of special cases by different surgeons in different countries. This employment of paraffin promises to revolutionize many extensive plastic operative procedures giving results that no surgeon could hope to attain under the former laws of surgery. Dr. Kolle has therefore made a distinct contribution to medical knowledge when he produced this work. He himself has had a very wide experience in prophetic operations, and therefore is entitled to speak with authority. His descriptions of indications for the employment of

this method; of the method itself and the results obtained by its use presented in clear concise style.

Pulmonary Tuberculosis and All Complications. By Sherman G. Bonney, M. D., Professor of Medicine, Denver and Gross College of Medicine, Denver. Octavo of 778 pages, with 189 original illustrations, including 20 in colors and 60 x-ray photographs. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$7.00 net; Half Morocco, \$8.50 net.

This new work embodies the results of wide personal experience in observing and treating tuberculous patients, especially those suffering with the pulmonary form. The book is a thorough and complete treatise of the entire subject of tuberculosis, taking up every region of the body and every secondary involvement that can occur. The section on Physical Signs of Pulmonary Tuberculosis is really a complete monograph on the physical diagnosis of diseases of the chest. As is to be expected, treatment is particularly full and practical. There are chapters on prophylaxis; open-air treatment, fully illustrated, diet, sanitarium and climatic treatments; therapeutic measures to alleviate distressing symptoms; and drug and vaccine therapeutics. The latter method of treating tuberculosis is apparently producing most remarkable results and the author has introduced records of cases in which he used this method. As he says, however, it is not yet time to attempt any decided conclusions as to the value of vaccine therapy. His reports are valuable in that they are contributory evidence.

Over two hundred original pictures, twenty-four of them being in colors, and selected with great discrimination, are as practical as the text and considerably enhances the value of the book to the reader. We have no hesitation in pronouncing this the most thoroughly practical work on tuberculosis yet published.

New Edition of Gray's Anatomy.

Gray's Anatomy has maintained such a lead in its own field since its original publication fifty years ago that it has won the distinction of being the most important work in all medical literature. Hundreds of thousands of copies have started students at the beginning of their course in medicine, have been kept always at hands, and have been carried to their offices after graduation for guidance in the basic facts of medicine and surgery. Such an announcement as a new edition of "Gray" is therefore of primary importance to everyone concerned with medicine, whatever be his

stage or station in medical life.

This new edition soon to appear, is the result of a thorough revision begun two years ago. In this work Professors J. Chalmers Da Costa and Edward Anthony Spitzka, who occupy, respectively, the chairs of Surgery and of Anatomy in the Jefferson Medical College of Philadelphia, have been associated. Dr. Spitzka unites the qualifications of an anatomist of the first rank with those of an artist as well, a rare combination of powers, hence his delineations convey directly to the reader's eye his own exact knowledge of structure. He has rewritten what has heretofore been the most complex and difficult portion of anatomy, the Nerve System, illustrating it with seventy of his own drawings, so that that subject of recently revolutionized development is at once brought to date and simplified. Every other page has been scanned to reflect the latest knowledge.

"Gray" has always been distinguished by the possession of a quality defying analysis and imitation, namely, its teaching power. In this it reflects the towering genius of its author. Henry Gray died young, but left behind him this imperishable evidence of his consummate knowledge of human structure and of the best methods of imparting it to others. Nature rarely creates a Shakespeare, a Napoleon or a Crichton. Until she creates another Gray his work will stand.

No small part of the observed fact that Gray saves a student half his time and effort and doubles the permanence of his knowledge is due to its illustrations. Quantity of pictures can easily be overdone. Teaching quality is difficult to achieve and impossible to imitate. The great series of "Gray" engravings has always been unique in this essential point of teaching quality. They enable the eye and mind to co-operate, thus focussing the whole of the reader's power on the subject before him. These graphic demonstrations simultaneously convey the terminology of anatomy by reason of the fact that the names of the parts are engraved directly upon them, whereby the nomenclature and also the position, extent and relations of each part are unconsciously and indelibly fixed in the memory. These are the four cardinal points to know about any structure, and they are conveyed by a method unique in "Gray," and one that is as simple as it is effective. Colors are abundantly used to show muscle-attachments, veins, arteries, lymphatics and nerves.

The possessor of the new "Gray" will have the best issue in which this superb book has ever appeared, and from the foregoing description it may be gathered that

it will outdistance competitors by a greater interval even than before.

What Will Restore Business?

Labor as a distinct interest, like capital, is chiefly concerned with being profitably occupied. Work for everybody at good wages, and under reasonable conditions, is what the wage-earning classes chiefly desire,—in so far as they have an economic motive that dominates their action in public affairs. For some months past, following the monetary panic of last autumn, there has been a widespread industrial depression, with the result of the stoppage of more than half of the mills and factories of the country. Workingmen of Republican proclivities are not likely to believe that the full resumption of business activity would be accelerated by the election of Mr. Bryan. Business men as a class do not dislike to change so much as they dislike uncertainty. They would regard Taft's election as involving less uncertainty than Bryan's. If the Republicans are kept in full power, they will have to deal with three large situations affecting business: First, they will be expected to amend the railway laws in order, on the one hand, to give the railroads a better chance to make agreements and to earn profits, and, on the other, to bring them at certain points under better regulation. Second, the Sherman Anti-Trust law must be modified so that it may not be a menace to legitimate business. Third, the tariff must be revised as quickly as possible. These things being done, there should for several years be no agitation of changes in the statutes that would affect conditions in a fundamental way. The result would be a period of well-justified prosperity.—From "The Progress of the World" in the American Review of Reviews for August.

Dorothea Deakin's New Novel in the August Lippincott's.

There is a such a wide variety of fiction in the modern magazines that every one can surely find something to his liking now and then, no matter how finicky his tastes may be. A few of the stories—alas, that they should be so few!—may be classified as being of the kind that practically everybody enjoys—that one cannot help liking, unless he is a sour, crabbed sort of person, who flatly refuses to find merit in anything. The August Lippincott's contains a complete novel that we believe pretty nearly everybody will like. It is called "The Road to Gretna Green," and the author is Dorothea Deakin, a young English writer who has won golden opinions both for her clever book, "Georgie," and for her magazine

contributions. The scene of the novel is laid in the little English village of Malinder, where Lady Alexander Greenrose, the nineteen-year-old daughter of Lord Malinder, is living incognita, to recover from a broken heart brought about by the fact that her ducal lover has been appropriated by her bewitching elder sister. Miss Green, her chaperon, suggests that if she will spend her time helping others she may forget her own troubles, and in pursuance of this idea Alexandra proceeds to "butt in" to love affairs and other matters with a recklessness little short of sublime. She is not altogether successful in her efforts to reform the universe, but, as though Fate at least gave her credit for good intentions, she is made happy herself in the end. The story fairly "bubbles over with humor," to use a hackneyed phrase, and reminds one of the late Frank R. Stockton's work.

Half a dozen other clever stories, some worth-while special articles, and a number of charming poems will also be found in Lippincott's for August. And we mustn't forget the humorous section, "Walnuts and Wine."

—August Lippincott's.

After Taking.

The Capital Gaffer said, "I guess
That sooner or later I must confess
The cleverest stunt I learned at school
Was how to figure by 'per foot' rule."

—August Lippincott's.

Abstracts of the Leading articles of the month.

Inherited Syphilis.—Lucas, in the British Medical Journal, makes the following remarks on children's diseases:

The cause of syphilis, whether inherited or acquired, is the presence in the blood and tissues of the same organism, spirochaeta pallida, which can be demonstrated in the various secondary lesions, in the blood, and in the internal organs.

The discovery of the cause necessitates the rearrangement of our former views as to the transmission. Inheritance from the father alone is now put out of count, and it follows that infection of a mother by her syphilitic fetus can never occur. Inheritance is invariably through the syphilitised mother.

It would seem that when virulent, the spirochaetes penetrate the chorion or placenta and occasion miscarriage, macerated fetuses, or premature births; but when the virus is attenuated by time or treatment the placenta forms a complete protection to the

developing fetus, and it is the separation of the placenta at birth which allows the infection to take place through the umbilical vein. Hence the regularity of the secondary exanthematous stage from a fortnight to three months after birth. In these cases the separation of the placenta is the first stage, and corresponds to the chancre or acquired syphilis.

Hitherto Colles' law has been used as an argument in support of the view that the mother may get a mild form of syphilis from her syphilitic fetus, whose syphilis is supposed to be derived entirely from the father. But the law of immunity will remain equally true if it is to be supposed that the mother is first inoculated by the father, a large dose of protozoan causing an obvious eruptive syphilis and a small dose a syphilis which misses the eruptive stage.

Syphilis in a man is generally admitted to be capable of transmission to a succeeding generation for a much shorter time than syphilis in a woman, and this supports the view, viz: that for transmission it is necessary that the woman be first infected.

The question whether the milk of a syphilitic female infect a healthy infant at the breast has been much discussed. If Voss's experiment is to be trusted, milk has been directly inoculated, but the milk of a syphilitic woman, when received into the alimentary tract of an infant, need not convey any infection to the child.

It is obvious, as the greater cannot be included in the less, that a spirochaeta cannot be carried in a spermatozoon, but this does not exclude the possibility of the spirochaeta being conveyed by the fluid part of the semen.

Transmission to the third generation is another question open to discussion. If the tertiary symptoms, occurring ten or twenty years after inoculation, can be proved to be due to renewed activity of the spirochaeta in certain situations, there seems to be a fair possibility of their being carried to the third generation. In this connection Lucas mentions a case where the patients were syphilitic and their infant showed no symptoms of inherited syphilis while under observation.

There is probably no disease responsible for such an enormous destruction of life in its earliest stages as that caused by syphilitic parentage. This mortality is greater in those families where both parents have suffered from chancre syphilis and obvious secondaries. The severity of the infection and ineffective treatment or lack of treatment are the two factors which determine the mortality.

In conclusion he emphasizes the importance of weighing carefully all the evidence

before determining that a particular affection is due to inherited syphilis. Every deformity from a dislocated hip to cleft palate, all defects such as hernia, infantile paralysis of various kinds and even naevi have been described as dependent on inherited syphilis, and as if better to cover the anomalies, the term "parasyphilis" has been invented to add to the confusion.

We do not deny that persons whose constitutions have been weakened by disease are liable to produce degenerates in succeeding generations; but in future the most certain test of the disease being syphilis will be the presence of the *Spirochaeta pallida* in the part affected.

The organism has an extraordinary persistence producing local symptoms after lengthened periods, but happily we have in mercury and the iodides drugs which control its development and bring and bring about its destruction. Metchikoff has recently shown that sometimes, after direct inoculation, the application of a calomel ointment to the sore is sufficient to kill the organism and prevent of the occurrence of secondary symptoms.

Iodotannin Mixture for Tuberculosis—The following mixture is credited to Arthaud in *Journal de medecine de Paris* for February 22, 1908:

R	Tincture of iodine.....	3i;
	Tannic acid.....	3vi;
	Glycerin.....	3v;
	Alcohol.....	3x.

M. Sig.: One teaspoonful three times a day.

Intramuscular Injections in Syphilis—

After a trial of the soluble salts of mercury, Lane (*British Medical Journal*) has abandoned them for the insoluble preparations, using almost exclusively calomel. The dosage of the calomel is $\frac{23}{100}$ grain of the sublimed powder suspended in 17 minims of sterilized olive oil, each injection being prepared separately and introduced into minute flasks hermetically sealed. The deposit of calomel seen in the small flasks at once disappears on heating them over a spirit lamp, when the powder assumes a milky appearance, and the powder is in a state of perfect suspension. He has also used gray oil, a term applied to a large number of preparations of different strengths and compositions, but consisting essentially of metallic mercury suspended in some fatty vehicle. He gives the following as the formula of a preparation which is employed by the army medical staff:

R	Mercury.....	3i;
	Wool, fat.....	3iv;
	Liquid petrolatum (carbolized 2 per cent.).....	ad 3x.

M.

One grain of metallic mercury is contained in 10 minims, and a suitable weekly dose for an adult is from 10 to 15 minims.

Prolapse of the Rectum in Children.—

Mummery (Brit. Med. Journal) says that rectal prolapse is a comparatively common affection among children. Of 50 consecutive cases he has found 22 to be among males, 28 among females; their ages varied from three months to five years. Of causes, diarrhœa was the commonest precursor of prolapse, occurring in 14 of the cases; 13 of the patients had adenoids; 3 had worms; in 3 the condition followed whooping cough, and in 3 measles; 2 had rectal polyps, 1 prostatic inflammation, and 1 a rectal stricture; in 1 case it was blamed on constipation; stone in the bladder of phymosis was not present in any of the cases. General weakness and malnutrition, therefore, caused the larger, local causes being present in but 7. Absorption of fat is a result of malnutrition, and the removal of this fat from the rectum predisposes to prolapse. The exciting cause he considers to be the unnatural method of defecation adopted in civilized countries. Pathological prolapse is unknown among animals and uncivilized races. The natural position for defecation is the squatting one, in which the glutei and perineal muscles are firmly contracted, thus supporting the levator ani and tightening the pelvic fascia; the coccyx is firmly fixed in the squatting position, the lower part of the rectum thus forming a considerable angle, while in the sitting posture the rectum is almost a straight tube. The obliquity of the false pelvis in children also predisposes to prolapse. In treatment the child's general health and nutrition must be improved. The stools should be passed in the squatting position into a shallow pan. This cures prolapse as a rule at once. Local causes, whether rectal or otherwise, must be attended to.

¶ **Leukemia in Dogs.**—Outakakon (Virchow's Archiv.) has investigated some cases of leukemia occurring in dogs. The writer states that the lymphatic variety is commoner than the myelogenous. The post mortem examinations showed general pallor of all the organs, with enlargement of liver and spleen, and a change of the yellow marrow to a greyish red color. Microscopically there was diffuse cellular hyperplasia of marrow and spleen, and some cellular infiltration of other organs: There was a great increase of white cells in the blood, principally of a round mononuclear variety. No enlargement of the lymph glands was, however, found.

Punch Fractures.—Burrows (Brit. Medi-

cal Journal) calls attention to the fact that fractures of one of the metacarpal bones following a blow with the clenched fist are more common than is generally supposed. In his series of eight cases, four types were noted: 1. Fracture of the first metacarpal bone not involving the articular surface. 2. Bennett's fracture, or fracture of the proximal articular surface of the thumb metacarpal bone. 3. Fracture of the head or shaft of one or more of the metacarpal bones. 4. Fracture of the base of the fifth metacarpal bone, resembling Bennett's fracture of the thumb. It is important to recognize and treat these injuries as fractures for the reason that occasionally osteoarthritic changes occur, which result in more or less disability of the affected finger.

Malignant Tumors of the Interior of the Nose.—

Harmer and Glas (Deutsche Zeitschrift für Chirurgie) states that malignant tumors of the interior of the nose are relatively rare. Gurlt found only four cases of carcinoma of the interior of the nose out of 9554 cases of this disease in various organs, and only 15 cases of sarcoma out of 884 connective tissue tumors. The various forms of treatment are discussed, and results of the same in various hands set forth.

These gentlemen sum up the treatment of the cases observed in Chirari's clinic by saying that in the last two years twenty-five cases of cancer and six cases of sarcoma of the interior of the nose were observed. Of the carcinomata, 14 were of the flat-cell and 10 of the cylindrical-cell variety. The sarcomata were either round or spindle-celled. Of the flat-cell carcinomata, seven were operated upon radically; in three of these the upper jaw was resected, and in two the eyeball was also enucleated. One flat-cell cancer invaded the frontal sinus and was removed by chiseling away the anterior sinus wall. Of the seven cases operated upon radically, six came to autopsy within six months, and in the other case there was inoperable recurrence within seven months. In five of the cases which came to autopsy there was intradural extension of the disease. Seven cases of the flat-cell variety received only endonasal and symptomatic treatment. Three of these cases died soon after being first seen, two were yet living at the time of the report, and the fate of the other two could not be found out.

Of the ten cylindrical-cell cancers, six were subjected to radical operation. Four of these six died, one showed recurrence a few months after operation, and one was free from recurrence sixteen months after operation. Of the four cases treated conservatively two died, and the results in the

other two are unknown.

As regards the six cases of sarcoma, the result in two cases operated upon intranasally is unknown; of four cases in which radical operation was performed, three (one of round-cell sarcoma and two of spindle-cell sarcoma) may be considered cured; one case died of recurrence soon after operation.

Cranial Traumatism and Mental Disturbance.

—Drs. Dupuy and Carpentier (*L'Encephale*) contribute their experience of a case of mental disturbance following an accident. It cannot be said that it adds a great deal to the education of a question which, owing to recent legislation in most European countries, has become a very important one. The patient had been the subject of an accident due to being violently upset by a cyclist. He was unconscious for three days, and then manifested symptoms of great mental confusion and restlessness. He then became elevated, with hallucinations of hearing and marked annesia. Examination of the cerebro-spinal fluid showed the presence of disintegrating red blood corpuscles, thus indicating a subarachnoid hæmorrhage due to the accident. He gradually improved and ultimately recovered about two months after the accident. A remarkable feature of the case was that his disposition appeared to be permanently altered, from being sombre and easily depressed he became lively and euphoristic.

In discussing the case they conclude that the accident was not the sole factor in the production of the mental disturbance, but that predisposition played an important part. In this conclusion they agree with the view of Professor Joffroy in believing that the soil is of equal importance to the seed as regards the fruit of an accident. It is much to be desired that some sound general principles might be established to guide opinion in this important class of cases, but so far none has been put forward.

Croup and Morphine.—Lesage and Cleret (*La Tribune Med.*) favor the use of morphine in diphtheritic laryngitis whenever there are symptoms of obstruction. This obstruction is accompanied by crises of spasm which may prove fatal before antitoxin can relieve the condition. The authors believe that the reputation for poisonous symptoms in the use of opium in infants and young children is due to the other alkaloids contained and not to the morphine. Morphine is very well borne by the infant. When they meet with a case of laryngeal stenosis of diphtheritic origin they give as a routine treatment in injec-

tion of one-fourth of one-half cubic centimetre of a 1 per cent. solution of morphine. At the same time they inject eighty to one hundred and twenty cubic centimeters of Roux. The child sleeps quietly without spasm for five or six hours and then awakes practically cured. When intubation is necessary the length of the time that the tube must remain in place is shortened, and a reintubation is avoided. Thus we have fewer lesions of the larynx and less severe ones. At the same time the sleep that the infant obtains puts him in the best possible position to resist the severity of the poisoning.

Prolapsus Uteri in Nulliparae.—Reclus (*Gaz. des Hopitaux*) states that the prolapsus of unmarried women differs in its etiology from that of the married who have borne children. Its symptoms and treatment also vary. He says that it results in general from weakness and maldevelopment of the uterine ligaments which is congenital. In a case cited by the author the round ligaments were found to be very small and weak. The patient was treated by an Alexander operation which did not keep the uterus up at all. Previously she underwent a freshening and suture of the perineum with the same result. The only permanent benefit was obtained by ventrofixation, an operation that is of doubtful benefit in a young woman who may become pregnant. This condition is much more likely to occur in young girls who are weak, have irregular menses, and an infantile aspect, with ill-developed muscles and ptosis of the abdominal organs.

Treatment of Tuberculous Testes by Iodine.—Finocchiaro (*Centralbl. f. Chir.*) notes the results of twelve cases of tuberculosis of the testes treated in Durante's clinic by injections of iodine. The solution employed consists of one part iodine, two parts potassium iodide, in one hundred parts water. This is injected in gradually increasing doses directly into the diseased epididymis, and the injections are repeated every second day. After about thirty injections healing took place, and the swelling receded in the majority of the cases. Atrophy of the testes does not ensue, and its internal secretion continues, so that there are no psychic disturbances, and in two cases there was a capacity for ejaculation, numerous spermatozoa being present in the fluid.

The Bactericidal Power of the Bile.—Fornet (*Arch. f. Hyg.*) finds that fresh bile prevents development of typhoid bacilli. It has not so much bactericidal power for cocci. Bile is a relatively favorable media for the

growth of the typhoid bacillus if the bactericidal power of the organism is removed in one way or another. The bactericidal power may be increased by the addition of bactericidal salicylic acid. Tests of disinfection showed that while bacteria are greatly hindered in their development by a disinfection agent already in solution, the same agent in similar concentration dissolved in the bacterial suspension does not give as good results.

Addison's Disease with Status Lymphaticus.—Hedinger (Zeit. f. Pathol.) says that Addison's disease is not infrequently accompanied by enlargement of the lymphatic glands, and hyperplasia of the spleen and thymus. He further states that he saw, in one year, three cases of this disease with very marked status lymphaticus. Upon examining the autopsy records of the Berne and Basel Pathological Institutes he found that the latter condition frequently is associated with Addison's disease. The writer is of the opinion that the hyperplasia of the lymphatic system in these cases must be due to Addison's disease. By special stains he found that the chromaffin cells of the adrenal gland including the paraganglion were greatly reduced. He concludes that the change or the defective *anlage* of the chromaffin cells is the common cause for Addison's disease and of status lymphaticus.

Intussusception.—Fitzwilliams, in The London Medical Lancet, discusses the etiology of this condition. The author states that the seasonal influence of the disease is marked. A curve made from 453 cases not older than one year, according to the months of the year in which the intussusceptions occurred, shows a fall during the first two months and then a sudden rise in March, in which month the numbers reached their maximum; from April to September the fall is gradual and persistent, October and November each show a slight rise, while during December the curve shows that the figures nearly double those of the previous month and almost equal those of March. The relation of age to the incidence of the disease is remarkable and constant. In 648 cases under the age of 12 years 466, or 71.9 per cent., occurred in children who were not more than 12 months old; 143, or 20.5 per cent., between the ages of 1 and 6 years. The period between the fourth and the seventh months of life inclusive is the time at which intussusception is most likely to occur; of the 466 cases under one year no less than 64 per cent. fell within this period of four months. This monthly variation is due directly to the ignorance on the part of those who are responsible for feed-

ing the child. The appearance of teeth at about the sixth month is often taken by parents as an indication of ability to assimilate a more varied diet. In 788 cases of all ages in which the sex was noted, 536, or 68 per cent., were males. The writer thinks that the sex incidence favors a dietetic origin of the affection, male children, the larger and stronger, being given more food than females. Intussusceptions occur almost always in fat, well-developed, healthy children. The author believes that if the mothers were really carefully questioned many would give a history of the child having had some unusual substance by the mouth, such as some indigestible form of food, an altered diet, or some purgative. The age incidence, the effect of the seasons and, to a lesser extent, the disproportion between the sexes, all seem to point to a dietetic rather than to an anatomical causation of the disease. He has watched the formation of nodes in the intestine spontaneously and under electric stimulation. He thinks these are very suggestive of the manner in which an invagination begins. A local constriction becoming overlapped by the dilated bowel below to such an extent that it can be grasped by the latter is all that is needed to initiate an intussusception. There seems to be a very fine line between the limits of physiological and pathological movement in the commencement of intussusception; and the governing mechanism is so delicately balanced that there are times when the least thing, such as an undigested crust or a grain of gray powder, may be sufficient to turn a hitherto physiological process into a pathological condition fraught with the gravest danger to life.

Treatment of Some Acute Pulmonary Affections of Infancy.—Delearde (Rev.

Fran. de Med. et de Chir.) recommends revulsion as the best treatment for bronchopneumonia and capillary bronchitis in young children. The author allows them to sit up in bed so as to lessen the danger of passive congestion of the lungs from the horizontal position. The revulsion is produced by sinapisms or by hydrotherapeutic applications. The sinapisms and hot applications are reserved for those cases in which the extent of the lung lesion, rather than the severity of the infection, is the cause of a bad prognosis. In the cases in which deep infection, and intoxication are evidenced by heart weakness and general bad condition, cold will be of more value, applied either by cold baths or cold packs. The effect will be to increase the strength of the pulse, improve the general condition, lessen tension of the pulse and increase

diuresis. When the lung lesion in its extent is the dreaded symptom mustard applied by envelopment is very useful. A rather thin mustard paste is made and a napkin is wrung out in it, and is wrapped about the patient's body so as to cover the chest both back and front. This is covered with flannel and the child kept warm and still for fifteen minutes. He is then unwrapped and sponged with hot water in the bath to remove the loose mustard, and is dressed and put to bed. He generally will sleep for several hours after the application which will redden the skin for several hours. The application of sinapisms may be made twice in twenty-four hours, the bath four times. It should be repeated every day until the temperature has fallen and the principal symptoms may improved. The ether method of revulsion proposed by the author, and one that is little used so far, is the fixation abscess. It is made by injecting turpentine under the skin over the point of the lesion. An aseptic abscess is produced which soon heals and acts as an efficient counterirritant. It is to be used only in severe cases.

Examination of the Feces for Occult Blood.—Citron (Deutsch. med. Woch.) says that by occult gastrointestinal hemorrhage one understands gastric or intestinal bleeding demonstrable neither microscopically nor macroscopically. For diagnosis of the condition the writer employs Adler's benzin reaction. It is necessary to use all or at least the greater part of the stool of a defecation. Instead of ether, he uses, as a solvent, chemically pure carbon tetrachloride.

Upon the basis of his investigations, he was able to determine that the benzin reaction is infallible only in a lacto-vegetable diet. In diseases in which the findings in the stools correspond entirely with the anatomical conception (nervous dyspepsia; gastralgias of various origin, except gastric ulcer; habitual constipation), the test was negative; on the other hand, it was predominantly positive in ulcer and carcinoma of the stomach.

The author says that, in the absence of all other sources of blood, a positive result indicates a destructive or atrophic process, and that repeatedly negative results exclude carcinoma with almost absolute certainty. Strange to relate, he obtained positive reactions in several cases of achylia—a result never observed by Boas and Ruetimeyer and consequently used as a differential diagnostic sign against carcinoma.

Changes in the Spinal Ganglia in Herpes Zoster.—Fischer (Festschrift. f. Chiari.) reports four cases of herpes zoster,

in insane patients, who came to autopsy at periods varying from ten days to two years after the eruption. In the single recent case, the corresponding dorsal ganglion was found to be in a state of acute inflammation, while the chronic cases presented sclerosis of the dorsal ganglion, with secondary degeneration. These observations serve to confirm the findings of Head and Campbell. Only one ganglion was found to be affected also in those cases where the herpetic eruption had extended somewhat farther. There was a perfect uniformity in regard to the localization of the cutaneous change. In this connection, the fourth case is especially noteworthy. Here the fifth cervical ganglion was the one affected—a localization not represented in the series of Head and Campbell. The herpetic lesion occupied the posterior aspect of the shoulder, the outline of which it followed as a narrow strip, approximately from the middle of the trapezius muscle, down to the lower insertion of the deltoid.

"Amebiasis, Its Symptomatology, Diagnosis, Sequelae and the Use of Formalin and Copper Phenol Sulphonate in the Treatment."—Dr. John L. Jelks, Memphis, Tenn., at the recent meeting of the American Proctologic Society called attention to the great prevalence of this disease in the South. Marked differences have been ascribed to the ameba as to its character and actions in different cases, especially with reference to their phagocytic properties and their motility. The author referred to associated infection as playing an important role in many cases and attributes to this mixed infection, the difference in character of ulceration in the higher parts of the colon, and that in the rectum.

Cases of amebiasis are referred to as occurring in nests, in the low marshy districts, in the sparsely settled alluvial sections and in the suburban mill districts of the city. None of the cases in the city were residents of the highland portion, and all of them partook of fresh vegetables which were grown in the bottoms and washed with water from shallow wells.

The author viewed with suspicion all cases of violent acute dysentery or chronic diarrhea with mucus discharge. The author stated with emphasis that he has not found the symptoms of dysentery and diarrhea, essentials to the existence of amebiasis; on the other hand, he has encountered cases in which constipation or obstipation was complained of, and he called special attention to this statement as being contrary to the generally accepted theory.

In the majority of cases, however, he stated the patient complains of and the predominant symptom in chronic cases is, that

of recurring diarrhea, which has existed for several months or years, associated with a quantity of mucus and occasionally blood stained.

The symptoms in malignant acute cases, the author recited, are quite severe from the onset, the patient suffering great exhaustion from nervous movements and the septic condition which soon ensues. Sometimes large casts of mucosa are expelled, as also casts of mucus and fibrin. These latter are most fatal and should they recover from the acute symptoms, very often lapse into a sub-acute or chronic which may last for years with periods of abatement and exacerbation of symptoms.

The author reviewed the symptomatology and then stated that a diagnosis might be overlooked without the aid of the microscope, which if put into more general use by clinicians in the South, especially, would reveal many heretofore unsuspected cases as of this origin.

In reciting the sequelae and gross intestinal pathology in a series of 25 cases, the author referred to many features, and stated that in two recently treated cases, small openings or ulcers extended into extensive sub-mucus abscesses.

Often the intestinal mucosa presents only slight ulceration, or a general red granular appearance, or perhaps oedematous, and though these are amebic, a mixed infection is thought accountable for certain phases of this process, for, as the author explained, the amebae prefer the juicy sub-epithelial structures, and the pathology is chiefly sub-epithelial. The colon bacilli and streptococci are accorded importance in part of the inflammatory process, especially in the rectum. Thus is explained the great difference in the character of the ulcers found there and those seen in the higher portions of the colon.

Autopsy in one case showed marked strictures and thickening of rectal wall, while in the splenic flexure, which was the seat of fatal perforative ulceration, the ulcers were sharp cut, round and oval seen through a thin gut with only lightly adherent omentum covering the perforated gut.

Periods of exacerbation and abatement of symptoms in these chronic cases are thought due to several causes, chiefly the difference in activity and virulence of different generations of this protozoa. Certain differences exist also in activity in sporulation and in the process of incystation.

In the twenty-five cases cited by the author he noted four cases in which infection in the liver was diagnosed, two of which were verified by operation; five cases of stenosis, more or less marked; two cases of valvular stenosis; two perforations, one

of which was verified by autopsy; one case in which casts of mucosa was expelled; one case from which seven adenomata were removed from the upper rectum; in three cases jaundice was marked; three cases had hemorrhoids and one case had rectal abscess and fistula; one case suffered an impaction in the sigmoid, the size of a fetal head, the result of stenosis below and thinning of the musculosa above; one case had infected gall bladder which required drainage; in four cases appendiceal involvement was diagnosed; in one case in which appendicostomy was performed, adhesions were found, the result of an attack since the dysentery was established, and in this case great thickening of the peritoneum and a tubercular family history afforded reason for suspecting in this case a tubercular complication. However, Lewis' law could not be verified.

In the treatment, the author first referred to the importance of selecting a proper diet for these cases, and then referred to the use of Formalin and Boracic Acid Solution, and Formalin and Copper Phenol-Sulphonate solution in high irrigations through a recurrent tube which he has devised specially for that purpose. He also referred to treatments through the sigmoidoscope with silver nitrate followed by the installation of Boracic Acid and Aristol, or Iodoform and Bismuth Sub-Nitrate and Olive Oil.

The author concluded that the washing away of necrotic material and debris, as also the infecting agents is an important matter in the treatment of these cases and stated that these stimulate the vaso-motor supply, relieve passive congestion and stasis, increase the amount of flesh blood to the inflamed structures, and perhaps aid in the development of antitoxic bodies.

Dysentery.—Dr. J. M. Mathews, Louisville, Ky., at the recent meeting of the American Proctologic Society reported a case of amebic dysentery in a man, 45 years of age, who had never been farther South than Louisville, Ky. He had been treated for 10 years for a diarrhea which entirely disappeared at times, but in the course of a few months it would reappear. A proctoscopic examination was made and an ulcerated condition of the entire rectum and lower half of sigmoid was observed. A number of the ulcers were curetted and a microscopic examination made. No amœba were present. Ulcers were all healed and patient well in three and a half months. In about ten months patient returned to the office and was found to be in about the same condition as before. Another scraping was done and a microscopic examination made. Numerous amœba were present.

Patient being a wholesale fruit dealer, had handled and eaten raw tropical fruits for more than twenty years. There is no doubt that his infection occurring in this way.

Report of Second Case.—A boy, ten years of age, with a good family history. He had so-called dysentery for two years. Had, of course, been treated for the same during this time. He was thin and anemic, had temperature every afternoon from 99 to 101. Pulse rate correspondingly increased. Had from five to fifteen actions every day. He was placed in the Hanes (inverted position) and examined with the sigmoidoscope. There seemed to be an abrasion of the superficial protective epithelial cells along the lower extremity of the sigmoid and rectum. When a pledget of cotton was rubbed over the mucous surface it would be very slightly stained with blood. No other pathology could be made out.

Patient was put in bed and was not allowed to get up except on the commode. He was given concentrated liquid and semi-solid food. The bowel irrigated every morning with normal saline solution and in the afternoon a local application of argyrol or ichthyol was made.

He remained in the Infirmary four weeks and, at the expiration of which time, he was entirely free from diarrhea, with an increase in weight of twelve pounds. One month later he had gained eight pounds.

While such as these are referred to as cases of dysentery, they are types of diarrhea due to more or less fermentation in the upper bowel, and also the sensitive condition of the mucous membrane, above referred to, in the lower bowel.

Report of Third Case.—A man 42 years of age, who had an intense diarrhea for three years. It came on in the month of July after a day of hard manual labor. Weather was very warm and he had eaten quite freely of fresh vegetables. Attack was sudden and the diarrhea was preceded and accompanied by much abdominal pain. Actions from ten to fifteen each day. During his two years illness he would improve under the influence of diet and rest but did not feel at all well at any time.

When he first came to the office he showed every external evidence of being in the latter stages of malignant disease. We had him assume the inverted posture and the examination at once revealed a dozen or more small ulcers along the upper rectum and lower sigmoid.

He was put in bed and given rich concentrated food. Irrigations and local applications were made to the ulcers every day. He was sent home in five weeks and had gained fifteen pounds and was well.

In this case, as in the case just previously reported, there was no specific cause that could be made out. The disease in both cases yielded easily to treatment. In the first case it was proven to be amœbic dysentery, in the second and third cases they were types of diarrhea, or, so-called dysentery of a non-specific origin, so far as we are now able to determine. I doubt not that in the future many of the more simple forms of intestinal disturbances will be proven to have their specific causes.

Observations on the Rectal Temperature after Muscular Exercise.

—Flack, in the British Medical Journal, notes that it is well known that the bodily temperature is increased by exercise, but a difference of opinion exists as to the normal extent of this increase, and also as to the degree to which the temperature may rise without producing ill-effects. By many it is thought that the extra amount of heat produced is met, as a rule, by a corresponding increase in the amount of heat loss, so that the resultant body temperature is but little, if at all, raised, and that should any great increase take place a number of characteristic symptoms ensue. This view is probably due to the method of taking the temperature. It has been shown by Pembrey and Nicol that mouth and axillary temperature readings are unreliable, particularly in cold weather and after muscular exercise. The most reliable method is per rectum. Observations made by the writer and Hill at the London Hospital and Inter-Hospital Sports of 1907, when the weather was bleak and moist, with cold winds blowing, showed that the longer the effort on the part of the athletes the higher the temperature rose. One subject, after a 220 yard race, in which he finished first, had a rectal temperature of 100.85 deg. F. Another, finishing first in the mile race, showed a temperature of 106.2 deg. F., the temperature reading being taken one minute after the race. A number of other observations were made at this time, all showing a rise of temperature after body exercise.

A second tabulated series of cases was compiled from the temperature readings taken on the members of the winning team at the Inter-Hospital Rugby Final, on March 12, 1908. The afternoon was sunny, fresh and cool, with but little wind blowing. The subjects, when their temperatures were taken, felt "quite cool," yet they all showed temperatures ranging from 101.6 deg. to 103.4 deg. F. None showed any signs of warmth or dyspnea. These temperatures were taken with a thirty-second thermometer, allowing it to remain in the rectum fifty seconds, and the record was made from ten

to twenty-eight minutes after the match was over.

It is well known that many factors, such as food, age, sex, race, external temperature, besides muscular work, are held to play a part in determining the body temperature. It would appear, however, that muscular work is the most important.

Rifle Bullet, Shrapnel, and Shell Wounds in the Russo-Japanese War.—

Glagolieff, in The London Medical Lancet, makes the statement that 25 per cent. of the wounds treated were made by shrapnel. This is a much larger percentage than was anticipated before the war and is a great increase over the 4 per cent. of the Russo-Turkish war. As shrapnel wounds are usually more severe than small arm wounds, this notable increase in their proportion is of much practical importance as indicating at least the need of larger preparation for their proper treatment. Many more cases of suppuration occurred among them; there were more penetrating wounds with lodgement of projectile; and a longer time was required for convalescence. Glagolieff agrees fully with the modern teaching of simply applying a first aid bandage in the field, reserving almost all operative work for a later time when surroundings are satisfactory.

Luxation of the Semilunar Bone of the Wrist.—Poulsen (Archiv. f. klin. Chir.)

says that formerly diagnosis of fractures or luxations of the carpal bones was made usually only when there was produced at the same time an open wound through which the injured bone could be seen. The condition was as a rule spoken of as an arthritis. The use of the x-rays has shown, however, that these injuries are not so rare as formerly supposed. Two bones especially are found to be the seat of injury, the navicular bone and the semilunar bone; the former is usually fractured, while the latter is as a rule luxated. The author has tabulated seventy-five instances of luxation of the semilunar bone.

The diagnosis is made as a rule only by the x-ray.

If the wound is an open one, the luxated bone should be removed. If the skin is unbroken and the injury recent, bloodless reposition is possible, and is in some cases carried out successfully. If one fails to replace the bone, he has choice between expectant and operative treatment. It is unwise to attempt reposition when the condition has been present more than a few weeks. The tendency now is to proceed surgically in these cases. In recent cases, after the bone is laid bare, it can in some cases be replaced. If this cannot be done it must be

removed. This should also be done if there is such contusion as to greatly lessen the vitality of the bone. Most of the cases seen are old ones, on which other methods of treatment have been exhausted.

He has observed three cases of luxation of the semilunar bone. Two of these he treated by extirpation of the bone, with good results. The patients have much better use of the hand and are gradually improving still more, so that there is little doubt that the function will become quite normal. The third case refused operation.

Opsonins and Bacterial Vaccine Therapy.—Ross (Canadian Journal of Medicine and Surgery) makes the following statement:

"My opinions are founded on over two years of practical experience in the treatment of a considerable number of affections due to a variety of micro-organisms. I may state that I have endeavored to analyze all my results coldly and critically, with a due allowance for coincidence and the intervention of other, though unknown, agencies. Nevertheless, I find my belief firmly established that proper inoculation with appropriate bacterial vaccines is a powerful expedient for the cure or control of many diseases due to micro-organisms. To my own mind the evidence in favor of this belief is almost overwhelming. Concerning the relation of the opsonic theory to inoculation, however, there is considerable difference of opinion. I cannot discuss this question now, but my opinion is that though estimation of the opsonic index is often unnecessary, still such investigation has been and still is of great service in enabling us to determine the dosage of a particular vaccine and the appropriate time for inoculation and reinoculation when we are in doubt. That the method of estimating the opsonic index is mathematically accurate few would have the temerity to claim, but that it is sufficiently so to serve as a useful guide in the practical application of vaccine therapy to the treatment of disease *few therapeutists* who have used the methods over a sufficient length of time to justify an opinion will deny. As a practical physician, however, I am concerned with the cure or control of bacterial disease, and I am chiefly interested in opsonic methods of investigation because I believe that they do assist me in obtaining a successful issue in certain difficult cases where in default of these methods I could use bacterial vaccines neither safely nor intelligently."

Treatment of Contracted Pelvis.—Ols-hausen (Berl. klin. Wchnschr.) says that the measurement of the conjugata vera is not the vital point in contracted pelvis. He

describes in detail the shape of the pelvis in rickets, and in the generally contracted form. The diagnosis of the latter is more difficult than that of the rachitic or simple flattened pelvis. In the generally contracted pelvis the conjugate diameter is rarely less than 3 in. The size of the foetal head and also the degree of hardness are important factors, which cannot, however, always be easily determined. When the is dilated and the head lying over the inlet, the relative size of the head can be ascertained. Olshausen describes the mechanisms of labor in contracted pelvis. When the posterior part of the parietal bone presents in high degrees of flattened pelvis, one may anticipate difficulties. After describing in detail the foetal positions in the various forms of contracted pelvis and the natural means of delivery, Olshausen discusses the treatment of pelvic contraction. With reference to weak pains, few drugs are of use to strengthen them. Ergot is only available when the head is on the pelvic floor. Quinine in doses of 5 grs. every two hours may do good. Warm baths are supposed to stimulate uterine action, but Olshausen does not consider them advisable when the os is dilated and the membranes ruptured. Placing the patient in a more favorable position often improves matters. Forceps must be used with great care, especially in cases where the head has not engaged at the inlet. If a fair trial fails to make any progress, the forceps should be removed, and perforation should be performed. Although the author does not consider version favorable for the child, it saves the maternal parts from excessive pressure.

Craniotomy is indicated when the foetus is already dead, but should very rarely be performed on a living child. Porro's operation need no longer be considered, as the results of ordinary Cæsarean section are now so satisfactory. With regard to the various pelvis dividing operations, Olshausen does not think the technique of any of them has yet been perfected. The chief dangers are hemorrhage-fistula, and tears into the vaginal walls, with general infection as a result. The author believes, however, that phibiotomy will continue to be recognized as a standard obstetrical operation.

Treatment of Scoliosis by Creeping.—

Kuh (Prager medizinische Wochenschrift) says that four-footed animals in walking bend the spine to one side at a certain phase of the progression, and to the other side at a subsequent phase. Following the example of Klapp, the writer has applied this knowledge to the treatment of scoliosis in the human being. In small children creeping

is done without difficulty, as they simply follow their atavistic tendency. In older children whose spinal column is already stiffened the creeping motion must be modified. Klapp prescribes three modifications. In the first modification the child goes rapidly forward, and at the same time carries out rapid lateral movements with the entire spine relaxed, by this means producing considerable bending, which is increased by turning the head from side to side. The head is bent toward the side where the hand stands near the knee, and at the same time the child is instructed to look behind him.

In the second modification the child creeps quite slowly while the bending is forcibly done. The leg which is set back is placed toward the concave side, the head and shoulder-girdle are forced over toward the concave side, and by this means the curve of the spine is accentuated; the next moment the opposite position is taken.

The third modification consists in a forced curving of the spine without locomotion. There occurs not only a marked mobilization of the spine but also a repression of the ribs. Finally in certain forms of scoliosis the child is required to creep in a circle. The knees and hands are protected by sandals. At first the exercises are for a quarter of an hour forenoon and afternoon, and later prolonged to two hours daily. The method is contraindicated in weak and anemic children. He does not consider it of much practical value.

A Case of Serous Meningo-Encephalitis, with Autopsy Report.

Blau (Zeitschrift für Ohrenheilkunde) describes the case of a child 2½ years old. Had measles for three weeks, which was followed by pain in the right ear and discharge, and followed by gradual loss of eyesight and hearing, pallor of the optic disc, with thinness of the retinal arteries, ptosis of the left (opposite) eye-lid and occasional convulsions of the left arm and leg. The child became somnolent and reflexes lost. Breathing difficult, incontinence of feces and urine. No rigidity of neck. Lumbar puncture was not performed. The radical mastoid operation was performed, and considerable necrosis of bone was found. The middle fossa was exposed and the dura incised and the brain punctured in three directions without finding any pus, though a large quantity of clear fluid was evacuated on each insertion of the knife. The sigmoid sinus and the posterior fossa were exposed. Incision gave the same result as the middle fossa. Ptosis diminished, but death took place in 18 hours. Autopsy showed the lateral ventricles to be enormously distended. The convolutions were

unusually flattened. There was a clot in the superior longitudinal sinus. A number of conditions confirmed the original diagnosis of purulent meningitis and the possibility of an abscess justified the operation, but the conditions found at the operation suggested serous meningitis—the enormous quantity of clear fluid evacuated on puncturing the brain. This supposition was confirmed at autopsy. There was no direct communication between the primary disease of the temporal bone and the interior of the skull. A direct bacteriological infection can hardly have caused disease of the meninges, and the case can probably be regarded as confirming Merken's suggested explanation of serous meningitis, that it is a disease caused by toxic agents.

Heart Surgery Under Diminished Air-Pressure.—Sauerbruch (Archiv. f. klin. Chir.) has made some experiments in operating upon heart wounds in a pneumatic chamber under varying pressure in order to determine the effect of collapse of the lung upon bleeding from the heart wound, also the significance of pneumothorax upon the course of the case. The experiments were done upon dogs and rabbits in a pneumatic chamber, often with ordinary atmospheric pressure, and often under pressure changing from zero to 10 mm.

He concludes as follows:

The performance of operations upon the heart in a pneumatic chamber permits, on account of the abolition of the danger of pneumothorax, free selection of incision, and thereby renders possible the most rapid and suitable operation.

The possibility of regulating pneumothorax in the chamber offers the advantage of reducing the hemorrhage from the heart wound during the suturing, which is further facilitated by relaxation of the heart wall. The possibility of regulating the pressure in the chamber permits, furthermore, after complete suture, through increasing the negative pressure to 7 to 8 mm., the removal of pneumothorax before closing the wound; by this means the disturbances of circulation dependent upon pneumothorax are abolished, and immediately there is brought about a marked stimulation of the heart's action. The removal of the pneumothorax implies a very essential diminution of the danger of infection of the pleural cavity. Especially in the placing of the stitches in the right heart in penetrating wounds, a temporary bending of the cava through luxation of the heart is of assistance.

Mulberry-Like Hypertrophy of the Inferior Turbinate.—Kubo (Archiv. für Laryngologie und Rhinologie) says that

these mulberry-like hypertrophies are frequently met by the rhinologist and do not shrink under the application of cocaine. The forms of hypertrophy are classified differently by authors, some considering them papillomas, others polypoid swelling, while some place them in the category of hypertrophic rhinitis, describing them as increase of tissue which is folded, papillary, lobulated, mulberry-like, or grape-like. In order to properly classify this form of hypertrophy, Kubo studied 186 cases microscopically, making serial sections. In these cases the situation of the growth was almost exclusively on the inferior turbinate, especially on its anterior part, the folds of the hypertrophy extending in every direction. The hypertrophy did not shrink under cocaine. In each case the growths were removed by a snare, and the material was then prepared for examination. The author found the following:

(1) The epithelial layer. The epithelium consisted of healthy ciliated cells which were absent in the prominent parts of the hypertrophy, apparently as a result of mechanical destruction in the preparation of the specimens. The deep layer consisted of several layers of cylindrical epithelium, the nucleus of which lay near the base of the cell. At no point was it observed that the cells were changed in character, nor was the layer pathologically thickened.

(2) The membrana limitans was colored regularly and normally by eosin.

(3) In the papillae or folds within the papillae were found many capillaries, loose, connective tissue, considerable round-cell and mucous-cell infiltration. The papillae were free from glands or erectile tissue. The tissue beneath the papillae consists principally of glands, erectile tissue, connective tissue and round cells in various numbers.

Salodine in the Treatment of Syphilis.

—Benassi (Gazz. degli Osped.) has been testing the value saidine in the treatment of secondary and tertiary syphilitic lesions. It was tried in about 50 cases, but it was only possible to watch the effect for any length of time in 22 cases (8 tertiary and 14 secondary). The drug is a compound of iodine (26 per cent.) and calcium (4.1 per cent.), and has the formula $(C_{22}H_{42}O_2I)_2Ca$. It is an absolutely odorless and tasteless powder, and insoluble in water. The usual dose is one grain, given in a cachet. He found saidine a good substitute for potassium iodide and the alkaline iodides. It acts quite as well, and in some cases even better, than iodide of potassium, and can be tolerated in larger doses; no iodism was observed even in patients suf-

fering from gastric disorder and under large doses. It may be used where one usually prescribes the iodide. It is best tolerated when given at or just after a meal.

Two Cases of Meningitis Cured by Lumbar Puncture.—Luarros (El Siglo Medico) describes two cases of this character. The first patient was a boy 8 years of age, believed to be suffering from tuberculous meningitis, and cured by means of two lumbar punctures, with removal each time of 40 ccm. of clear cerebro-spinal fluid. This child presented the residues of a tuberculous arthritis; moreover, three other children of the same family had died of tuberculous meningitis, so that the diagnosis in this case would seem to be reasonably certain. It was positive in the other patient, also a child eight years of age, who was suffering from purulent meningitis of unknown origin. Lumbar puncture, performed on the fifth day of the disease, the patient lying in deep coma, resulted in considerable improvement (withdrawal of 25 ccm. of purulent fluid). The puncture was repeated on the next following day, with removal of 30 ccm. of clear fluid. Three days later the patient was relatively well, but there was a relapse, with a recurrence of the coma. Again 40 ccm. of purulent spinal fluid were withdrawn, followed on the next day by the removal of a similar amount of transparent fluid. The case terminated in complete recovery within a week after the last puncture. Before the onset of the present illness the patient had complained of severe pain in the right ear, but nothing abnormal could be demonstrated in the ear, and the origin of the suppurative meningitis remained unknown.

Simultaneous Presence of the Typhoid and Paratyphoid Bacillus in Water.—Couradi (Klin. Jahrb.) traced the source of infection in a case of typhoid fever to ice which had been taken from a certain fountain. The author examined the water of the fountain bacteriologically twenty-six days after the ice had been taken, and found both the typhoid and paratyphoid bacillus present in it. At the date of its arrival at the laboratory there were 100 colonies of Eberth's bacillus for twenty to 250 of the paratyphoid bacillus. After being kept for a week in the dark, the same water gave five to ten colonies of Eberth to 100 colonies of paratyphoid, and at the end of five weeks both were found. Water taken six days and nine days later from the fountain itself did not show these germs, whereas they were still present in the basin of the fountain.

The Treatment of Diarrhoea in Infants by Solution of Gelatine.—Pehn in Arch. de Med. des Enfants, says that during the past five years gelatine was employed in various gastro-intestinal affections of childhood, and was found to exert a very favorable influence upon the disease. Only very carefully cleansed gelatinous substances are suitable for the purpose, and the author's preparations, for instance, were obtained from a photograph-plate factory, for the reason that nothing but very carefully-prepared gelatine is employed for the sensitive plates. The gelatine is dissolved in water, in a proportion of 1:10, and is then sterilized in the autoclave at a temperature of 120 deg. After careful filtration the solution is filled into glass tubes, and these are closed with cotton pledgets. Before using, these glasses must be heated in the water-bath, and the required amount is then poured into the baby's milk, so that about 10 g. gelatine are administered in 24 hours. This quantity may, however, be exceeded to suit the requirements of the case, the gelatinous substance being a perfectly harmless body.

The diseases in which this method of treatment was carried out were summer diarrhoeas, gastro-intestitis, due to improper feeding, dyspepsia, with or without pylorospasm, dysenteric enterocolitis, etc. The treatment is not applicable to severe cases of cholera infantum, and those gastro-intestinal affections which represent true digestive general infections, the disease already involving various important organs such as the liver, the kidneys, etc. It goes without saying that the gelatine treatment cannot be relied upon in these grave conditions.

Hyperplastic Tuberculosis of the Cecum—Nash in the London Medical Lancet reports two cases of this condition, each exhibiting the well-known difficulty of making a distinction clinically between tuberculosis and cancer. The age of occurrence is perhaps the most characteristic feature of tuberculous involvement, this being noted before the fortieth year. The writer quotes statistics to the effect that out of 229 operations there were 46 deaths.

His first patient, thirty years old, had both tuberculosis and cancer in the family. Before admission to the hospital the patient suffered from diarrhea, flatulence, and distention of the bowels. The major complaint was pain in the abdomen. In the right iliac fossa there was a firm, tender, slightly movable lump. The cecum was found involved in the tumor, which was removed, the ileum being attached to the colon by a Murphy button. Four and a

half years after operation the patient was reported to be in perfect health. Examination of the removed specimen failed to reveal any trace of the appendix, showing simply great thickening of the cecal walls with narrowing of the ileocecal orifice and dilatation of the ileum above. It was not until microscopical examination was made that the tuberculous nature of the affection was recognized.

The second case was twenty-one years old, with a cancerous family history. Before admission to the hospital he suffered with some pain in the lower abdomen, occasional attacks of vomiting large quantities of food, for the relief of which symptoms his kidney was stitched up, although at the time this operation was performed a lump was felt in the right iliac region. Following this kidney operation the patient remained in good health for four months, when there was recurrence of severe pain accompanied by vomiting. The symptoms recurred for two months, when he was admitted to the hospital. Cecal tumor, together with enlarged glands, was removed, and the continuity of the intestine restored by direct suture. The tumor was due to great thickening of the walls of the cecum unaccompanied by mucous membrane involvement. The ileocecal valve was constricted. No trace of the appendix could be found. On section the growth looked and felt like fibrous tissue. This patient was in perfect health two years after operation.

Instrumental Perforations and Pseudo-perforations of the Uterus.—Heymann (Gynaek. Rundsch.) during a curettage preceding a vagino-fixation operation for prolapsus, in spite of careful work, perforated the fundus uteri with the curette. The operation was continued without anxiety, the uterus delivered through the vaginal incision into the peritoneal cavity and the small perforation-wound sutured. Recovery uncomplicated.

In a second case the sound first entered to a depth of 7 cm., and during attempt to raise the uterus forwards, it passed into the peritoneal cavity to a depth of 11 cm. The curettage was completed, a weak lysol solution being injected into the uterine cavity, and then an anterior colpotomy was done. On delivering the uterus the small perforation was sutured and a vagino-fixation done.

The object of the paper is to prove that in the non-puerperal uterus perforation is of frequent occurrence and that the theories explaining the sudden entrance of the sound or curette to unusual depths by assuming an undue elasticity of the uterine wall, sudden softening of the muscular structure by

the passage of the instruments into the Fallopian tubes, are rather far-fetched.

White Clay in Cholera and Infectious Diarrhea.—In a recent issue of the *Deutsche Militararztliche Zeitschrift* Buttersack reviews Jul. Stumpf, on a reliable cure for Asiatic cholera, severe infectious diarrhea and concerning the importance of Argilla in the treatment of certain bacterial diseases.

The author has conceived the idea of utilizing white clay in surgery and internal medicine, and he understands how to entertain the reader by his genial enthusiasm. In the shortest time the most wonderful results are achieved by the use of bolus alba for the worst contusions, if the part concerned is only enveloped with enough of it. If 125 grams be dropped in $\frac{1}{2}$ L. of water and drunk as possible, diarrhea, cholera, poisoning, etc., are quickly controlled, providing that the bowel is empty at the time.

The hypercritical trend of the times is naturally skeptical, but the remedy is simple, and every one has a chance to prove this therapy. Stumpf thought at first that these extraordinary results were brought about by the drying of the bacteria, but now he claims that the small microbes are enveloped by the somewhat larger bodies of bolus, and in a manner buried alive and made harmless. The proposition gains credence by reading the pamphlet, and it is recommended for trial.

Bronchoscopy in Cases of Foreign Body in the Bronchi.—Eicken (Deut. Med. Woch.) reports 12 cases in which the foreign body was easily seen. In two of them the patient coughed up the foreign body through the tube when this was in position for extraction. In nine cases extraction with forceps was successfully done, and in one case only was it impossible to relieve the patient. This failure was due to inflammation following an unsuccessful bronchoscopy which had been made some time before.

In 15 successive cases of bronchoscopy the writer used local anesthesia seven times the others requiring a general anesthetic. The question of anesthesia in this work must be decided for each case, as no routine plan is feasible. In children, local anesthesia is likely to result in serious injuries to the delicate bronchial tissues by the tubes. Older patients are easily examined without general anesthesia.

Fibrolysin Treatment of Perigastric Adhesions.—Michael (Klin.-therap. Woch.) mentions one case of extensive perigastric adhesions, in which the following solution was employed: Thiosinamine, 2 gm.; gly-

cerin, 4 cc.; aq. dest., 14 cc. Two injections of I cc. each were given; later, half a vial (1.15 cc.) of fibrolysin (a sterilized solution of thiosinamine and sodium salicylate) was injected intramuscularly every second day. All in all, 23 cc. of fibrolysin were employed. The injections were painless and not accompanied by any untoward symptoms. In this and a second case the results were astonishing, in that the pains, which had been unusually severe, disappeared completely. The patients gained in weight during the treatment. In both instances the adhesions were the results of gastric ulcers, and operation, previously performed, verified the diagnosis.

The Placenta as a Source of Toxin in Eclampsia.—Hofbauer (*Fortschritte der Medizin*) states that clinical experience has shown that induction of labor has a decidedly favorable influence upon the course of eclampsia. Furthermore he says the experiments of Liepmann appear to indicate that the placenta of eclamptics contains a toxic substance. The author undertook to elucidate, from the chemical side, the anatomical picture of eclampsia described by Schmorl. He examined the livers of eclamptic individuals soon after death and detected in them various acids (formic acid, lactic acid, succinic acid). This appears to indicate that intravital partial autolytic processes occur in the liver. The intermediate products formed here can be identified also in the placenta of eclampsia. The autolytic hepatic processes occur as the result of washing of placental ferments into the maternal blood channels. Therefore, according to this writer, the placenta may, perhaps, be considered the *primum movens*; not in the sense that abnormal substances are formed here in eclampsia; but that the placenta acts as the source, in eclampsia, of the numerous normal ferments washed into the blood and which exert a deleterious influence upon the large parenchymatous organs—liver, kidneys and heart. This explains the finding of lactic acid in eclampsia, as first announced by Zweifel.

The Treatment of Fractures of the Patella of Long Standing.—Lord Leicester in the *British Medical Journal* has devised the following operation: A small vertical incision is made over each fragment; through the upper fragment two holes are drilled into the bone in an oblique direction; a piece of wire is drawn through both holes so that the middle of the loop, when pulled lies on the surface of the fragment; the ends of the wire are drawn into the lower wound and made to pass through corresponding holes in the lower fragment; after

the upper fragment is drawn forcibly down with the aid of a strong, sharp hook the wire is made taut and the ends are cut short. Both wounds are closed and the first few days is suspended in the vertical position. At the end of a certain period, both fragments will be found to have approximated considerably. A second operation is then performed; this consists in removal of the wire, the insertion in its place of uninterrupted sutures, freshening of the fractured surfaces and coaptation. The results in two cases were surprisingly satisfactory.

Delayed Chloroform Poisoning: Its Nature and Prevention.—Hunter in the *London Medical Lancet*, after a study, clinical, pathological and chemical, of delayed chloroform poisoning, and its relation to acid intoxication, the author concludes as follows: The vomiting which occurs after administration of anæsthetics is not of nervous origin; but it is essentially toxic, due to the profound depression of liver function with consequent diminution in its antitoxic function during the period of the administration. This depression will be the greater if a liver already weakened by food having been withheld for many hours before the administration. This enforced abstinence from food before administration of an anæsthetic may thus in individual cases be carried too far, and it is largely responsible for the fatal effects of delayed chloroform poisoning in exceptional cases. Such effects could in all probability be completely prevented if, instead of withholding food, particular care was taken that the patient had always a very nutritious and easily digestible meal, well-sweetened, two or three hours before the operation.

Respiratory Gymnastics.—Lewandowski, (*London Hospital*), summarizes the indications for "respiratory gymnastics" or systematic and regulated breathing exercises as an aid in the treatment of various complaints. The exercises must be regulated by the physician, and the author recommends a variety of movements, chief among which he regards the regular forcible expiration in the open air, the patient standing with the head thrown back and the arms extended. Such exercises are specially suited for patients predisposed to pulmonary tubercle. In those in which an apical lesion has been definitely diagnosed, great care must be taken in regulating the exercises on account of the danger of causing strain and bringing on an attack of hæmoptysis. In emphysematous conditions special stress is laid on the importance of expiratory breathing, and the author

warns against recommending the treatment in cases of pleurisy before all inflammatory reaction has disappeared. In combination with other active and passive movements the author has found respiratory gymnastics of great value in the treatment of chronic heart cases, in diseases of metabolism, such as diabetes, gout and obesity, and in digestive troubles.

High Altitude in the Treatment of Basedow's Disease.—Stiller (Medizin. klinik) is an apparently hopeless case, advised, as a desperate resource, a high altitude. The patient went to Schmeck, in the Carpathians, 1,000 metres high. On her return, the patient was, though grown grey, thin and fresh, without dropsy and cured of the disease. She lived for fifteen years longer and died of another disease. This success encouraged the author to try the same treatment in other cases, and he had in every case a like satisfactory result. Eulenberg expressed a doubt as to whether Basedow's disease was ever cured; his opinion was based on the observation of 800 cases. He, in his incomparably fewer cases, has seen, as a consequence of living in a high altitude, quite a number of definite cures, and he has rarely failed to obtain significant improvement. The stay in the mountains should be for several months, and should be repeated for several years in order to establish the good result. He is uncertain in what way the air acts. The author has the impression that this treatment is better adapted for dropsical patients than for long-standing cases with compensation. He believes that, in recent cases, operation should certainly be replaced by residence in high altitudes. He throws out a query if perhaps cardiac disease of other types in an uncompensated stage may not perhaps be benefited by a high altitude, instead of, as has always been supposed, made worse.

The writer concludes that the mulberry-like hypertrophies are caused principally by the increase in the adenoid and sub-epithelial layers, and that the irregularities of the surface are produced by increase of this material beneath the surface, which is different from smooth hypertrophy, where the changes are more in the erectile tissue layers. Therefore, in classifying these conditions he would differentiate clinically between the ordinary hypertrophies where the increase was in the connective tissue and in the venous sinuses from these mulberry-like hypertrophies where the changes occur principally in the adenoid layer. The author deprecates the use of the term "mulberry-like," and proposes that such hypertrophies should be termed "polypoid."

Diagnosis of Scarlet Fever.—Crowley, in *The Duol. Jour. Med. Sci.*, has studied 1005 consecutive cases from the standpoint of diagnosis. The author states that during the first stage, which ends with the disappearance of the rash, the chief signs are headache, vomiting and sore throat at the outset with rapid pulse, characteristic eruption and furred tongue. In the second stage, from the time of disappearance of the eruption to that of desquamation, which sometimes occurs before the rash has faded, the chief points to be looked for are: (1) The peeled condition of the tongue, which has not yet had time to renew its epithelium. (2) The appearance of the fauces which, if invasion has been at all severe, will still show some degree of infection. (3) Roughness and dryness of the skin, which is not infrequently of a dirty, yellowish color. (4) The presence of enlarged and injected papillæ on the legs, outer side of thighs and posterior surface of arms. (5) The existence of enlarged and tender glands at the angles of the jaw. In the third stage, peeling of the "pinhole" type, so-called because of the appearance of the skin which resembles that of a piece of paper perforated by a pin from the opposite side, is such a constant phenomenon and so distinctive that one is justified in ascribing to the toxin in scarlet fever a special and selective action on the skin which, in addition to the more general factor of hyperemia, determines this peculiar form of desquamation. Further evidence to be sought for at this stage in suspected cases is the presence of one or more of the commoner complications—*e.g.*, otorrhea, simple albuminuria, cervical adenitis or acute nephritis. He suggests a search for evidences of desquamation, indicating scarlet fever whenever called upon to treat one of these conditions. In septic scarlet fever the serious symptoms are caused by a mixed infection with staphylococcus pyogenes, etc., at the onset or later. In this the rash is often hemorrhagic, the glands of the neck are much swollen and tender and finally suppurate, the tongue and mouth may be ulcerated, the throat greatly inflamed and ulcerated, the temperature high and of septic type. Pyemia may follow. In toxic scarlet fever the fatal issue is due to an overpowering dose of the scarlet-fever toxin, and the symptoms from the outset are those of severe toxemia without secondary infection.

Membranous Rhinitis.—Rose, in *The London Practitioner*, states that it is frequently overlooked even by specialists in nose and throat disease. A bacteriological examination of a culture from the nasal membrane or the discharge will usually re-

veal many diphtheria bacilli. It usually occurs in children who may be in a fair general condition, running from the nose, slight bleeding, and nasal obstruction being pronounced symptoms. The mucous membrane of the nose is congested and covered with a more or less dense and tough membrane. The pharynx is usually normal in appearance. The disease usually continues four to six weeks. The patient should be isolated as in well pronounced diphtheria, antitoxin should be injected, and the nose irrigated. Removal of the membrane by force does no good, as it will immediately reform. Though this is considered a mild form of diphtheria and should be treated as such, it will not communicate to a susceptible person diphtheria in a severe form, but only a similar rhinitis or a sore throat with a small patch of exudate.

A Simple Lifting Apparatus.—Schultze (*Archiv f. klin. Chir.*) states that it is a common experience in operations upon the abdomen to have great difficulty in rendering the deep-lying organs accessible. Different methods of overcoming this have been proposed, but on account of the imperfection of these the author has been led to devise an apparatus designed for this purpose. The construction is very simple and coincides with that of the usual bed-table of the photographic stand, except that it is stronger. A portable stand carries a rack which is moved by a pinion. The rack has upon the upper end a crosspiece which receives an iron bar whose length is equal to the width of the operation table. Upon this bar rests a bolstered board which can be changed according to the width desired. Upon the pinion is a small balance wheel which makes the apparatus easy to manage. The heaviest weight can be raised without any inconvenience.

At any time during the operation raising or lowering is possible without in any way disturbing the field of operation. The apparatus can be employed on any operation table. It is used by placing the support under the table at one side and the cross-bar upon the table. This cross-bar can be put under any part of the body of the patient, which can be raised or lowered at will by means of the rack and pinion.

Lung Complications Following Ether Narcosis.—Offergeldt (*Archiv f. klin. Chir.*) has made experiments upon animals with different methods of ether administration. As a result of the method of pouring the ether upon a tightly closed mask the animals suffered a bronchopneumonia, from which a portion of them died. In the animals anesthetized by the ether oxygen

method the majority suffered afterward from bronchial symptoms and small areas of bronchopneumonia, but these symptoms soon disappeared and no dangerous complications ensued. In those anesthetized by the drop method there was occasionally slight fatty change in the bronchial epithelium, while the parenchyma of the lung and the epithelium of the alveoli were unaffected. The fatty degeneration of the bronchial epithelium was recovered from in a few days without harm. These experiments show that of all the known methods of ether narcosis the simple drop method, especially in reference to its influence upon the lung, shows its superiority. It appears almost as if the lung tissue tolerates better the simple ventilation with the air of the room than the excessive supply of oxygen through the anesthesia apparatus. It is, however, well to bear in mind that apparently, at least in the beginning of narcosis, more concentrated ether is delivered by the apparatus than by the drop method.

Uterine Perforations.—Riche (*Gaz. de Gyn.*) mentions the various instruments, surgical and for the production of abortion, that may cause rupture of the pregnant or puerperal uterus. The writer notes that pathological conditions of the uterus, such as chronic inflammations, tumors, and displacements influence the liability to perforation. When the surgeon feels the instrument slip into an abnormally deep uterus he should be warned to stop and find out if the instrument has not gone further than this organ. Hemorrhage is rarely so severe as to attract attention. Collapse may occur, but is not often present. The symptom that most frequently causes the operator to look for a perforation is a failure of the douche fluid to return after the operative procedure has ended. Pain is always absent when anesthesia is used and is not a prominent symptom in any case. It is possible as a complication to have prolapsus of the omentum or a loop of the intestine, or a perforation or injury of one of these structures. The best treatment in the absence of hemorrhage is absolute immobilization, ice to the abdomen, absence of intrauterine douching. Armed expectation is the indication, since hemorrhage or peritonitis will demand immediate opening of the abdomen.

Papilloma of the Ovary.—Emrys-Roberts (*Jour. Obst. and Gyn. Brit. Emp.*) states that primary superficial papilloma of the ovary is derived from the germinal epithelium and underlying connective tissue stroma. The acini in the periphery of the ovary are derived from ingrowths of the germinal epithelium. The vesicles which form so large a proportion of the papillary

projectious result from papillæ whose connective tissue cores have undergone edematous degeneration. The secondary deposits arise from disrupted papillæ; the dissemination of secondary deposits is favored by ascites. The collection of fluid in the abdomen represents the secretion of the epithelium forming the outer covering of the growth.

Ophthalmia Neonatorum.—Ford (The London Hospital) discusses the treatment of ophthalmia neonatorum as follows:

1. In cases of ante-partum ophthalmia, when the child is born with the eyes already inflamed, do not apply Crede's treatment. There is a tendency to think that if it is useful as a routine, much more is the method of value when inflammation is actually present. This is a mistake. The disease is already in its first stage, and silver nitrate solution will only do harm by increasing inflammation.

2. If Crede's method has been neglected at birth, do not apply it on the first sign of inflammation. It is then too late.

3. Never use silver nitrate solution stronger than 2 per cent. Mistakes are so often made, and the results are so disastrous, that it is well to emphasize the caution that a solution labeled 10 per cent. is five times as strong as one labeled 10 grains to the ounce (2 per cent.).

4. Examine the cornea of a child with ophthalmia neonatorum at least twice a day. There are only two ways of doing this. The child's hands should be securely held by one assistant, the head absolutely fixed by another, or between the operator's knees. Then the tips of the thumbs should be placed opposite one another on the extreme borders of the child's lids, and while exerting a gentle but firm pressure on the eyeball, and also holding the two thumbs constantly parallel to each other, the lids should be separated as far as possible. Maintain this position steadily until the child moves the eye, as it is sure to do sooner or later, so that the cornea comes for a brief moment into full view. The other method is by metal retractors, which should only be used as a last resort.

5. Protargol must be prepared with cold water. The best method is to dust the powder on to as large a surface as possible of the required amount of distilled water, and leave without stirring. It will dissolve in about half an hour. The solution does not keep well unless preserved in an amber-colored bottle in a cool, dark place. A convenient form for the practitioner who does not often use it is the soloid of 1 gr. or 4 grs.

6. If the inflammation is limited to one

eye it is in all probability a result of a congenital duct obstruction. The case should be referred to an ophthalmic surgeon. Recognized early, these cases can be cured rapidly and easily, but if allowed to persist for some months treatment is often difficult and tedious.

7. The percentage of cases of ophthalmia neonatorum due to the gonococcus has been estimated at 60 per cent. (Sydney Stephenson).

8. With regard to prognosis, De Schweinitz's opinion is valuable. He states that if an eye is seen while the cornea is still clear, except in diphtheritic or inherently malignant types, or in cases of malnutrition, a complete cure should be looked for. It has been estimated that 66 per cent. of the cases of ophthalmia neonatorum recover with unimpaired sight.

9. Protargol must not be used for too long. It undoubtedly stains the conjunctiva (Snell, de Schweinitz).

Prophylaxis.—(1) Wipe the eyelids clean with a damp swab immediately after birth, (2) drop protargol 10 per cent. into each conjunctival sac as soon as possible after birth.

Treatment.—(1) Cleanse the conjunctival sac every half hour with a warm solution of borax (3ij. ad. Oj.); (2) foment the eyes with squares of gauze wrung out of a hot solution of the same kind. Change every half hour. Do not cover the gauze with anything else; (3) drop protargol 10 per cent. into the conjunctival sac every hour; (4) once a day instil protargol 20 per cent., keeping the solution in the conjunctival sac for two minutes.

If the cornea becomes hazy, instil atropin (grs. ij. ad. 3j.) three times a day, and continue all the other measures.

In hyper-acute cases and in relapses, treat as above until the tense swelling is reduced and the secretion free, then make a single alteration; instead of instilling the 20 per cent. protargol paint the whole of the palpebral conjunctiva with 2 per cent. silver nitrate solution once a day. After a minute wash off any excess of fluid with sterilized salt solution.

The possibility of injury to the infant's eyes can hardly weigh as a serious contra-indication to the employment of obstetrical forceps, but the possibility of such injury should always be borne in mind by those who attend women in confinement. After prolonged or difficult labors, whether spontaneous or instrumental, any marks of violence to the eyes or ocular adnexa of the baby, or even in the absence of such marks, a searching examination not only of the external ocular structures, but the deeper parts of the eye, is urgently demanded for

the sake of the future ocular welfare of the infant.

Typhoid Infection of Ovarian Cysts.—

Taylor, in the Brit. Jour. of Gynec., says the sources of infection to be by way of the Fallopian tube; the intestine, including the vermiform appendix; in tapping; by infection of the blood stream in systemic contagious diseases. The bacillus coli communis and the pyogenic cocci are the most frequent germs to infect and cause suppuration in ovarian cysts. Infection with the typhoid bacillus is comparatively rare, since it connotes the occurrence of this disease in a patient already suffering from an ovarian cyst. He mentions a very instructive and interesting case. A woman aged 37 was admitted to hospital eight months after an attack of typhoid, during her convalescence from which a small and very mobile abdominal tumor was discovered. It had gradually increased in size until admission; there were no symptoms of suppuration. A diagnosis of ovarian cystoma was made. Laparotomy disclosed a large plum-colored cystic swelling, which was veiled by adherent omentum. The appearance of this lesion suggested pedicle-torsion, which, however, did not exist; the tumor, which was of the left ovary, was removed entire. Being incised two and a half pints of a uniform, greenish-yellow purulent, odorless fluid escaped, and from it a bacillus was subsequently obtained in pure culture, which proved to be the typhoid bacterium. Its morphological, tinctorial, culture and agglutinatingly studied. Moreover, the agglutinating power of the patient's serum in the typhoid bacilli proved that her previous illness was really enteric fever. There are, from a bacteriological standpoint, three varieties of post-typhoid suppuration in ovarian cysts as in other parts of the body: 1. A mixed infection, where both pyogenic cocci and the typhoid bacillus are present. 2. A secondary infection, caused by invasion of pyogenic cocci into an organ whose resisting power has been lessened as the result of enteric fever. 3. A pure infection by the bacillus typhosus alone. In addition to the case cited, the author details twelve others in which the typhoid bacillus was found in the contents of suppurating ovarian cysts.

Primary Cancer of the Urethra in Woman.—Boursier (Jour. de Med. de Bordeaux) says that only a small number of cases of primary cancer of the urethra have been reported in women. The writer reports two cases of pavement epithelioma, the form which has been most frequently observed. One of these cases was found to be of tubular pavement cells. The symp-

toms of the disease are the common ones of difficult urination, pollakuria, retention, and pain. Wassermann has noted pain in coition and frequent micturition. A question of importance therapeutically is the depth to which the disease is developed in the tissues. Winckel has divided these tumors into three groups; in the first the growth has invaded the urethra in the part situated below the symphysis to the length of ten to twelve millimeters. Here a wide excision with a bistoury is indicated, with suture of the urethra to the vaginal mucous membrane to form a new meatus. In the second stage the entire urethra is involved. Here the operation is much more serious. In the third, the neck of the bladder is involved as well as the neighboring parts, and here operation is impossible. Any operation in either case is likely to result in incontinence of urine.

The Indications and Contra-Indications for Curetting the Uterus.—

Parsons (The London Hospital) states that the most common symptoms for which curettement is done are those found in menorrhagia and metrorrhagia. The most obvious condition for a curettement is where, after recent parturition or miscarriage, there is persistent or irregular red discharge. This offers a good prognosis except where there is a chorion epithelioma or a miscarriage due to a small fibroid in the wall of the uterus. In the former case, curetting will increase the metrorrhagia, while in the latter curetting will stop the hemorrhage for a time, but it will soon return. Curettement will often cause a sluggish uterus to involute, even though the uterus is empty. In these cases, use the curette cautiously on account of the soft and flabby walls of the uterus; better use the finger instead of an instrument. Where there is a retention of decomposing particles, with pyrexia, do not curette, but irrigate with antiseptic solutions, after gradual dilatation. Remove the fragments afterwards with the finger or lightly curette with a dull curette, after which irrigate once more with an antiseptic solution.

Curetting is practiced in those cases of fibromyoma where the major operation of hysterectomy is refused, in those who have one or two small tumors without any severe symptoms. If this stops the menorrhagia, these women may become mothers, and much good is accomplished by this simple expedient. The curettement will have good effects for only a limited time, however, in such cases.

Curettement sometimes is effectual in cases of adenoma uteri with thickening and great vascularity of the endometrium. The adenoma is apt to recur, if there are several

masses of growths somewhat resembling carcinoma. Hysterectomy must then be performed.

Where there is a thin endometrium dependent upon fibrosis, guarded indeed should be the prognosis after curettement, as sometimes a total hysterectomy is needed. Apostoli's treatment is necessary and suitable in private patients who object to hysterectomy.

Retroversio uteri is often the cause of menorrhagia and, of course, it will do no good to curette the uterus if you do not replace the uterus. It is only in long-standing cases, where congestion produced by retroflexion has been active for some time, that it is necessary to curette. Even in these cases, you should replace first and curette afterwards.

Diseased appendages often cause menorrhagia, more particularly when the ovary on one side is diseased. Examine under an anæsthetic, curette if nothing is found, or open the abdomen and remove the appendage if it is enlarged or diseased.

Leucorrhœa is more often than not a symptom. All of the various conditions that lower health will cause leucorrhœa, a nasal catarrh, delicate throat, impaired digestion or chronic constipation. Curettement will do good in such cases. If the discharge is yellow, it may mean infection with the gonococcus. Do not curette in such a case, but dilate and irrigate with a mild antiseptic, and swab out the uterus every day with tincture of iodine. Curetting is also of value in cases of antelexio uteri, associated with dysmenorrhœa and sterility, which causes thickening of the endometrium with proliferation of glands, resembling carcinoma. Dilate carefully in such cases, as otherwise you may injure the walls of the uterus and make the dysmenorrhœa worse. For inoperable carcinoma of the uterine cervix, curettement is most useful. Thorough and careful scraping, with mopping off the surface with formalin or liquid carbolic is advisable. This stops the foul discharge for months, followed by improvement in the general health and comfort of the patient.

Lupus-Carcinoma.—Sequeira, (Brit. Jour. Dermatol.) says that lupus vulgaris is complicated in about 2 per cent. of the cases by epithelioma. During the past seven years the writer has seen 964 cases of lupus, among which were 14 cases of epithelioma. In 1½ per cent. of these 14 cases there were ten males and four females, an unusual proportion, as lupus is much more frequent in women than in men. The average age of the patients at the beginning of the malignant new growth was 36 years for men

and 46 for women. The previous treatment seemed to have had little influence in the production of the growth. Three cases had been treated by X-rays. In six cases the epithelioma appeared in cases of "red lupus," in others the new growth arose in scar tissue. The cheek was affected in seven cases. In no case was the mucous membrane primarily affected. Treatment consisted in excision, followed by x-ray. Two of the cases have remained three years and one of the cases one and a half years without relapse, seven have died, two are still under treatment and three have disappeared from observation.

Tuberculosis and the Opsonic Index.

—Inman (The London Practitioner) gives the following points upon upon this subject:

1. Early or febrile cases of pulmonary tuberculosis may be treated with advantage by means of pure air and graduated exercises. When such treatment is undertaken it must be borne in mind that "tuberculin by auto-inoculation" is being sed.

2. The opsonic index is a valuable guide to such treatment, and also gives useful information if inoculations of Koch's tuberculin are employed.

3. Rest is essential in febrile cases of consumption, and in these cases injection of tuberculin, using as a guide the opsonic index, is the treatment indicated.

The reader will gather from what has been written that the latest methods of treating consumption are those which aim at co-operating with the natural methods employed by the body itself for its own protection and defense. Where it is possible, as in the afebrile cases at Frimley, the body is made to carry on its own continuous inoculation, the efforts of the physician being directed to prevent excess or deficiency. Where, as in febrile cases, this cannot be done without harm, the need is supplied artificially. And in both cases a watch is kept over the blood by means of the opsonic index, so that the conditions may be maintained under which "the policemen of the body" can best discharge their duties.

Nutrition with Cows' Milk Containing Iron; in Chlorosis, Anaemia, etc.

—Schnutgen (Berl. klin. Wchschrft.) during a number of weeks cows' milk containing iron in large amounts to a series of patients in Senator's polyclinics. The results were very satisfactory. The number of erythrocytes was increased at the termination of the treatment, while the leukocytes had diminished. The hæmoglobin contents increased in all cases and the body weight rose considerably in some of the patients.

The treatment is warmly recommended for chlorosis, anæmia and other diseases of the blood. As a rule, one liter of milk daily for a period of four to six weeks is sufficient. Larger amounts are apt to produce a reluctance against the milk in certain cases. This iron milk is obtained by a special feeding method of the cows, devised by a Berlin veterinary. It contains from three to ten times as much iron as ordinary milk, but otherwise presents no particular taste or smell, etc. It will keep a little longer than ordinary milk. There is nothing peculiar about the digestion or assimilation of this iron milk.

Ganglion-Neuroma, With Description of a Case.—Glinski (Prezeglad lekarski) says that true neuromata of ganglion are of very infrequent occurrence, so that their existence has been questioned. The writer was enabled to examine a specimen in the pathologico-anatomical institute of the Krakian University. This specimen had been removed by Bogdenik from the neck of a girl 10 years of age. The growth was of considerable size, measuring $9 \times 6 \times 3\frac{1}{2}$ cm. Microscopically the tumor could be regarded partly as a lipoma and partly as a fibromyoma. Careful microscopical examination, however, showed the growth to consist exclusively of ganglion cells and nerve fibres. The nerve fibres were matted in various directions, and ganglion cells were arranged between them, either separately or in smaller or larger groups. The rest of the findings consisted merely of scanty cellular tissue and blood vessels. The point of origin of the tumor was undoubtedly the cervical sympathetic, as indicated by the location as well as the microscopical findings. The growth presumably originated during intra-uterine existence, for the patient's mother had noticed a nodule at the neck, which slowly increased in size, before the child had reached the age of 7 months.

Eversion of the Uterus.—Belbet (Annales de Gynecologie et d'Obstetrique) mentions a case who was forty-two years of age, and who had been long under observation for painful menstruation and uterine hemorrhages. Seen at the onset of this attack, the uterus was found much enlarged, but movable. Laborlike pains developed, and soon an enormous, dark, friable and bloody mass presented outside the vulva. On account of hemorrhage immediate operation was undertaken, diagnosis being "inversion" due to fibroid tumor, although no constricting cervical ring was found. The tumor mass was rapidly removed at the vulva, but greatly to the surprise of the operator the fundus of the uterus was found

above the tumor and quite normal in shape. It was found that the posterior uterine wall and the cervix had harbored the fibroid and had expelled it by a process of "eversion," the fundus taking no part. Recovery was uneventful and the uterus was left in place by this operation of "subvaginal" hysterectomy.

Three Years' Experience of Butlin's Operation for Cancer of the Tongue.

Paul, in the British Medical Journal, holds this operation to be the best devised thus far for the care of cancer of the tongue. The author says the operation should always be done in two stages; at the first, the tongue is removed by the intrabuccal method; at the second, the glands on both sides of the neck from the lower jaw to the clavicle are thoroughly dissected out. The second operation should follow the first at an interval of from two to three weeks. If both operations are done at one session the chances of septic infection are greatly increased, and the operation becomes a formidable one. No matter how sharply limited to one side of the tongue the growth may be, the glands should nevertheless be removed on both sides. This lesson was forced upon the author by his experience in one case. Of 35 operations performed by the author two died, both from sepsis. In cases in which the possibility of sepsis is likely to be encountered, the author believes that a dose of polyvalent serum should be injected as a prophylactic measure. Of the 35 cases, 17 are thus far free from recurrence. In only two, however, is the duration three years or over.

Treatment of Scabies — Nagelschmidt (Med. Klinik) says to procure a rapid and certain result in the treatment of scabies, it is necessary that the remedy used does not irritate the skin; yet it must penetrate rapidly and kill not only the acarus, but also the ova. A new remedy, fulfilling these requirements, is thiophinol; it is used in the bath and as a 5 or 10 per cent. ointment. The technique is as follows: The patient takes a thiophinol bath of 30 minutes' duration, and immediately after this he is carefully rubbed with 30 to 40 grams of a 10 per cent. thiophinol ointment. The same ointment is applied once daily for the next two or three days, and on the fourth or fifth day a bath is taken, as in the beginning. In this way a cure may be accomplished in five days, and a secondary dermatitis, due to the remedy, is never seen. Thiophinol has the advantage over other sulphur preparations in that it penetrates the skin more easily and is far better absorbed. Healthy individuals with an in-

tact skin, when taking a thiophinol bath, show a large amount of eliminated sulphur after one day.

The Mode of Production of the Presystolic Murmur in Mitral Stenosis.—Colbeck (The London Practitioner) says many different theories have been advanced to explain the occurrence of the presystolic murmur in mitral stenosis but none of them seems quite satisfactory. He says, on the basis of extensive anatomical and clinical work, that this murmur is due to vibrations set up in the large anterior flap of the mitral valve during auricular systole. The short, sharp first sound heard in mitral stenosis must be due to the abnormally sudden and forcible closure of the mitral valve, which is occasioned by the ventricular systole. The closure of this valve is more violent than usual, for the reason that the large anterior curtain exposed to the impact of the inflowing blood stream is not floated up so near to the mitral opening during the filling of the ventricle as under normal conditions, and with the occurrence of the ventricular systole the vibrating flap is suddenly and forcibly impelled into the position which it occupies during the closure of the valve. This explains the sudden cessation of the murmur and the occurrence of the short, sharp first sound. When the anterior flap of the mitral valve is destroyed or is so tied down as to be unable to vibrate, we have the presystolic murmur disappearing entirely, an observation often made in mitral stenosis.

Acute Poliomyelitis Associated with a Diplococcal Infection of Spinal Sac.

—In The London Medical Lancet, the case of a boy of 12 years is reported by Pasteur, Foulerton, and MacCormack. At the time of the report the patient was still crippled in the use of his lower limbs. They were able to make the following demonstrations: Identification of a micrococcus in the spinal fluid withdrawn during life from a patient with symptoms of acute poliomyelitis; success in the production of an ascending motor paralysis in a rabbit after a prolonged period of incubation by inoculating this fluid into the subdural space; the demonstration on the death of the inoculated animal of a micrococcus in the cerebro-spinal fluid similar to that seen in the fluid from the human case; and further, by similarly inoculating another rabbit with an emulsion of cerebro-spinal substance and fluid from the first experimental animal, they have succeeded in reproducing a motor paralysis, again after a somewhat prolonged period of incubation; and again associated with the presence of the micrococcus in the spinal fluid. But while they have succeeded

thus in obtaining direct evidence of the infective nature of the illness and of its association with a certain micro-organism, the evidence is incomplete bacteriologically, since they failed to obtain the micrococcus in culture on artificial media, and so were unable to give a complete description of it. The authors further believe that it has been established that there is a specific infective disease, of which acute poliomyelitis is a frequent and prominent, but not essential, feature. From the scanty information at our disposal it would appear that this specific disease has no clearly distinguishing primary features to enable one to differentiate it by its clinical symptoms from many other febrile conditions of probably infective origin which are frequently met with in practice, but which may not have sufficiently distinctive symptoms to enable a definite diagnosis to be arrived at. And so, whilst the serious complication of acute poliomyelitis when it has occurred has been at once recognized, the primary disease has not been differentiated hitherto, but has, in fact, usually been altogether overlooked.

The Present Position of Spinal Anesthesia.—Strauss (Deutsche Zeitschrift für Chirurgie) discusses this subject upon the basis of his own observations, and concludes as follows:

Tropacocaine is at present the least dangerous anesthetic for spinal anesthesia, although it also produces a series of secondary and after-phenomena and can even produce death. The dose should rather be too small than too large. Six centigrammes to tropacocaine seem to be sufficient for all cases.

Keeping the pelvis high and withdrawing considerable fluid permits with greatest safety the production of more profound analgesia. The addition of adrenalin appears rather prejudicial than useful and is therefore to be avoided. Minute attention to the technique is necessary to the avoidance of danger and bad results. The average duration of the analgesia is one hour. With a certain exactitude the peritoneum, lower extremities, and lower part of the abdomen are anesthetized. Secondary and after-results are greatly reduced by careful technique and selection of the cases, but not completely eliminated. For the employment of spinal anesthesia there are quite definite indications and contraindications. The method is indicated in all old, decrepit patients in whom narcosis in other ways is not suitable, or in pulmonary tuberculosis or diabetes. Contraindications are age up to fifteen years, neuro or psychopathic conditions, brain and spinal cord diseases, septic diseases, and all operations which can be carried out with local anesthesia.

Caution must be exercised in all cases of tuberculosis, syphilis, kidney disease, and in advanced arteriosclerosis, especially of the cerebral vessels. Employment in suitable manner and in appropriate cases spinal anesthesia offers many advantages, nevertheless the method is never without danger. The most efficacious means of lessening the danger consists in a conscientious restraint of its use.

Movable Spleen.—Morehead, in *The London Practitioner*, says that a movable spleen is usually bigger than normal; that traumatism is an occasional etiological factor. The tumor may be felt in any part of the abdomen, even within the pelvis, and in some cases slips down behind the colon. In the case he reports the diagnosis was probable hydronephrosis, supposed subsequently to have become purulent because of daily rigors and pus in the urine.

On operation the spleen was found axially rotated with the colon in front of it. The patient's condition was not sufficiently serious to warrant further operation, and the wound was closed without any attempt to fix the movable organ.

He further says that the tumor exhibited the most extraordinary variations in size. The alteration in size closely simulates that found in intermittent hydronephrosis.

As to the treatment of this condition, opinion is fairly evenly divided between splenectomy and splenoexy. The former is most frequently practiced, as it gives a permanent cure. In the latter recurrence has been noted.

Ileus as a Complication of Gonorrheal Epididymitis.—Balas (*Deutsche Med. Wochenschrift*) mentions a case of gonorrheal urethritis, with right-sided epididymitis, existing for four weeks. Four days after his entrance into the hospital, he had severe pains in the bowels, which necessitated him going to bed. He then showed constipation, vomiting, flatulency; he was well-nourished, but very weak, collapsed, frequent (120), small, weak pulse, and coldness of the extremities, temperature of 38.8 deg. C., and odor of feces from the mouth. Organs of the thorax were normal. The abdomen was distended, and peristaltic movements were noted at the umbilicus. There was a tympanitic note on percussion. The abdomen was not tender. There was no dullness of resistance. There was persistent hiccoughing and fecal vomiting. The right epididymis was swollen, the vas deferens thickened; both were tender. The abdominal cramps seem to follow up from the funiculus on the right side.

A diagnosis of ileus was made. Operation under ether narcosis showed pus in the

abdomen, and a general picture of diffuse peritonitis. A mass of intestines were found knuckled together in the neighborhood of the right linea innominata, with adhesions to the pelvic peritoneum, surrounded by a mass of greenish, thick pus. A small abscess was seen near the right ductus deferens, which was thickened, its lumen showing greenish, yellow pus, and its mucosa inflamed. Another abscess was found further down, four c.m. below the right linea innominata. There was also a small abscess in the head of the epididymis, and another larger one in the right prostate lobe. There was also present cystitis and a purulent inflammation of the right vesicula seminalis. The pus showed gonococcus and another Gram-positive bacillus, which probably came from the intestines.

Autopsy of this case confirmed these facts, and showed this to be a case of gonorrheal epididymitis, deferentitis and perforation of the vas deferens, with subperitoneal abscess, which was followed by a circumscribed peritonitis. The ileus was followed by acute diffuse peritonitis.

Results of Retention of the Membranes and the Best Method of Removal.—Lour

ros (*Zent. f. Gyn.*) after mentioning cases to illustrate the evil effects of retention of the membranes, gives the following rules for the use of the general practitioner: The entire removal of the membranes is of as great importance as that of the placenta. We cannot expect that large pieces of membrane will be removed by natural means without infection of the patient. It is necessary to carefully inspect the placenta so as to ascertain whether the membranes have all been removed with it. When retention has occurred the aseptic finger should be introduced into the uterine cavity and the location of the fragment ascertained. The finger may be used for its removal if it is of any size. Whenever hemorrhage occurs during the puerperium, or the lochia are fetid, the examination should be made with the finger and the piece removed with the finger or curette. Care should be exercised after the placenta has passed into the vagina not to tear the membranes by pressure on the fundus uteri or pulling on the placenta. When this has occurred two fingers may be introduced into the vagina and the piece removed. He thinks that there is less danger from the introduction of the finger under antiseptic precautions than in allowing the fragment to remain until sepsis has occurred.

Cystic Tumor of the Suprarenal Body, Successfully Removed by Periton.—

Doran, (*British Medical Journal*) mentions a patient, female, aged 62, who had suffer-

ed for years with abdominal pain in the left side, accompanied by dyspeptic symptoms. On examination a tumor, round and freely movable could be found in the left loin. It could be pushed beneath the ribs and downward below the umbilicus. The descending colon was demonstrated to lie in front of the growth. At operation the tumor was found to be cystic and to occupy the region in front of the kidney and below the pancreas. It was easily shelled out and the pedicle tied. Pathological examination showed the cyst to be of adrenal origin. In a review of the literature the writer found 13 instances of adrenal cysts.

Removal from and Return to a Milk Diet in Diarrheas of Infancy.—Rousseau-Saint-Philippe (Jour. de Med. de Bordeaux) states that the last word has not been said on the subject of infant feeding in gastrointestinal diseases of infants. It is necessary to have not only a milk that is clean and that is brought in a hygienic manner to the consumer, but one that still retains all its nourishing qualities. We must remember that cow's milk is not the natural food of the infant and should make use of it as medicine rather than a food. Some infants cannot tolerate it at all and others, after having gone onto a water diet and been cured of diarrhea, are unable to begin again on a diet of cow's milk. At the same time the vegetable or other foods that have sufficed for a time to keep up nutrition cannot be given for an indefinite period. He believes that we should now begin the use of milk very gradually, by the teaspoonful, like a medicine, slowly increasing the amount taken until we have again established a tolerance for it. Milk is not in all cases the perfect, antitoxic, easily assimilable, complete food that it has been considered. The food of the cows should be carefully watched that a good quality of milk may be produced. In cases in which milk becomes toxic it should be stopped at once and the child put on a water diet and some other food. When the intestinal tract has been cleansed, disinfected and brought back to a natural condition it will accept voluntarily the food that was previously toxic provided that it is given slowly in small doses.

The Effect of Hydratic Procedures Upon Children Having Measles.—Hecht (Jahrb. f. Kinderheilkd.) states that young children, up to the age of four years, are more thoroughly cooled off by cold baths than are children above this age. From the fourth year on the age makes no further difference, but poorly-developed and undernourished children always present a greater drop of temperature than the well-developed

and nourished patients. The antipyretic action of the bath is independent of the height of the fever and the daily temperature curve. The temperature after the bath diminishes in about the same manner as during the bath, reaching its lowest point about a quarter of an hour afterwards. Untoward accidents were observed in shape of an enormous drop of temperature in two cases, and diarrhoea in four cases concerning little children with rubella.

Ophthalamo-Tuberculin Reaction in Children, Especially in Infants.—Casoute (Arch. de Med. des Enf.) has studied the ophthalamo-tuberculin reaction in children and babies, to ascertain how frequently tuberculosis is transmitted directly to the infant from the mother. At the Creche of the Hospital Marseille in August and September, 1907, all the children were inoculated. Almost all infants admitted to the Creche are suffering malnutrition, and are fit subjects for tuberculosis. He made eighty instillations with a 2 per cent. solution, with eight positive results. He then used for inoculation a solution of five per cent. With this, thirty-eight infants gave thirty-five negative results, and three cases were doubtful. A third series was made with one per cent, and here there were thirty negative results. In all there were six doubtful reactions out of the seventy-three patients and one positive. With the positive tests the reaction began early in the night after inoculation, was at its height through the night, and was disappearing in the morning. The negative reactions were obtained in seventeen normal infants, ten feeble from birth, and forty-six feeble at birth and still feeble at the time of the test. Of thirteen reactions made with children in the medical and surgical service of the hospital the author gives the following results: One case of tubercular meningitis in a child of nine years with negative result from the test; diagnosis confirmed by the test of the cerebro-spinal fluid, which was positive. Ten year old child with bronchitis and emaciation, child of tuberculous mother negative. Gastroenteritis and cachexia in a child of two and a half years, and gastroenteritis in a child of six months both negative. Child of ten years with constant fever and doubtful signs at the right apex, with negative results. White swelling in state suppuration in the neck, with negative result. When there is a positive reaction at the first test the diagnosis is of value. The result may be delayed some hours. In one case there was such a marked reaction that an ulcer of the cornea was developed which left a scar. In some cases a second test will give a positive reaction after the first has failed. The author con-

siders it demonstrated that latent tuberculosis in infants is demonstrated to be rare.

Early Rising After Coeliotomy.—Hartzog (Centralbl. f. Gynak.) favors allowing patients to rise after two or three days, instead of remaining in bed for two or three weeks. The writer has treated 150 cases in this way, among which are included all kinds of severe abdominal operations. He believes that it has a better mental effect, allows the bowels to act naturally early in convalescence, and preserves better the strength of the patients. The author has had no case of hernia as a result of early sitting up, and the wounds have all healed by first intention. He does not, however, recommend this practice in hernia cases, or in plastic operations.

Enucleation of Uterine Fibromyoma During Pregnancy.—Herbert Williamson in a recent issue of the London Medical Lancet, mentions a case in which there was acute abdominal pain which began suddenly in the fourth month of the pregnancy and a rapidly growing tumor was found at the side of the uterus. The patient rapidly lost strength and showed signs of toxemia. At about six months a fibromyoma, attached to the right side of the anterior aspect of the uterus by a pedicle rather thicker than a man's wrist and adherent to adjacent viscera, was enucleated. The uterine mucosa was exposed though the cavity of the uterus was not opened. The hemorrhage was arrested by catgut sutures in the uterine wall. The tumor weighed seventeen and one-half pounds. It showed degeneration, especially toward its center. The case is reported because instances of operation upon the pregnant uterus without interruption of pregnancy are so frequently recorded that the writer thinks there is a tendency to feel a false safety in such procedures. The author holds that a fibroid should not be enucleated during pregnancy unless it causes or threatens to cause urgent symptoms.

Calcium Chloride in Melena Neonatorum.

Legge reports a severe case of melena neonatorum, in which in the course of 36 hours he gave 20 grains of calcium chloride. The child recovered, and Legge attributes the result to tee treatment, as the prognosis at the outset was distinctly bad.—British Medical Journal.

Effect of Pregnancy on Alopecia.

Taylor and Mackenna report a case in which the growth of hair was stimulated during pregnancy, the alopecia returning with the termination of pregnancy.—Journal of Obstetrics and Gynecology of the British Empire.

Miscellaneous.

New Subscribers for July.

Dr. H. T. Pope, Lumberton, N. C.
 Dr. Jno. Knox, Jr., Lumberton, N. C.
 Dr. R. M. Norment, Lumberton, N. C.
 Dr. B. F. McMillan, Red Springs, N. C.
 Dr. W. K. Anders, Wilmington, N. C.
 Dr. S. D. McDonald, Wilmington, N. C.
 Dr. Thos. R. Mask, Wilmington, N. C.
 Dr. J. B. Cranmer, Wilmington, N. C.
 Dr. Chas. T. Nesbitt, Wilmington, N. C.
 Dr. J. H. Honniet, Wilmington, N. C.
 Dr. A. H. Harriss, Wilmington, N. C.
 Dr. Jno. D. Kerr, Jr., Wilmington, N. C.
 Dr. Robt. B. Slocum, Wilmington, N. C.
 Dr. H. B. Hiatt, Clinton, N. C.
 Dr. R. L. Carr, Magnolia, N. C.
 Dr. R. H. Bradford, Burgaw, N. C.
 Dr. H. B. Thomas, Burgaw, N. C.
 Dr. L. W. Kornegay, Mt. Olive, N. C.
 Dr. Mc. McL. Tatum, Mt. Olive, N. C.
 Dr. T. W. Meyerberg, Goldsboro, N. C.
 Dr. Jas. E. Fort, Goldsboro, N. C.
 Dr. Henry B. Best, Goldsboro, N. C.
 Dr. A. H. Realey, Goldsboro, N. C.
 Dr. P. W. Burnett, Rocky Mount, N. C.
 Dr. F. S. Hargrove, Wilson, N. C.
 Dr. Spencer P. Bass, Tarboro, N. C.
 Dr. J. L. Nicholson, Washington, N. C.
 Dr. S. T. Nicholson, Washington, N. C.
 Dr. W. T. Beebe, Washington, N. C.
 Dr. Wm. Mann, New Bern, N. C.
 Dr. Francis Duffy, New Bern, N. C.
 Dr. Geo. Davis, Beaufort, N. C.
 Dr. A. S. Maxwell, Beaufort, N. C.
 Dr. K. P. B. Bonner, Morehead City, N. C.
 Dr. C. H. Bynum, Kinston, N. C.
 Dr. J. K. Ross, Horse Shoe, N. C.
 Dr. M. T. Frizzelle, Ayden, N. C.

Typhoid Fever.

Dr. A. F. Williams, of Wilson, N. C., writes as follows: "I have used Sulpho-Lythin mainly in malaria, typhoid fever and intestinal disorders, and have had great success with it whenever used in the above indications." A great many physicians report similar results. Samples and literature upon request to Laine Chemical Company.

Hydrophobia—Preventive Treatment.

ANNOUNCEMENT BY THE STATE BOARD OF HEALTH.

The General Assembly, at its last regular session, enacted the following:

An act authorizing the State Board of Health to provide for the preventive treatment of hydrophobia.

SECTION 1. That the State Board of Health is hereby authorized and empowered to provide for and have conducted under its direction the preventive treatment of hydrophobia or rabies, whenever in its judgment circumstances, financial and other, will justify it. The meet the expenses of this treatment the said board is hereby given authority to supplement the revenue derived from fees for the treatment by such sums from the treasury of the State Laboratory of Hygiene as may be necessary: *Provided*, that the usefulness and efficiency of the said laboratory is not thereby impaired.

SEC. 2. That the benefits of said treatment shall be given free of charge to all residents of the State who shall present to the Secretary of the State Board of Health, or its representative having in charge the management of this special work, an affidavit of inability to pay, duly sworn to and subscribed before a justice of the peace, or, if the case be a minor, such an affidavit by the parent or guardian. To meet as far as may be the expenses of this special work, the said State Board of Health is hereby authorized and directed to demand from those able to do so the payment in advance of a reasonable fee, not to exceed in any case the usual charge made by the reputable Pasteur institutes of this country.

The Board of Health, at its recent annual meeting, decided that circumstances would now justify the treatment.

The following extract from the circular of information issued by the Laboratory of Hygiene gives the necessary details:

Rabies.—In no other disease is an early diagnosis of more vital importance. Fortunately, a diagnosis can in most cases be made from a microscopic examination of the brain of the rabid animal. The suspected animal, or its head and neck, should be sent at the earliest possible moment to the laboratory for examination. The head should be packed in ice to prevent putrefaction, and should be sent by express, prepaid. A careful account of the animal, with a full history of cause of suspicion, should be sent in every case.

The treatment will require the presence of the patient in Raleigh for about three weeks, but residence in a hospital is not necessary. The cost of the entire treatment will be \$50, or will be furnished free to persons unable to pay, upon submission of "an affidavit of inability to pay, duly sworn to and subscribed before a justice of the peace, or, if the case be a minor, such an affidavit by the parent or guardian."

Attention is called to the fact that the law requires the fee to be paid *in advance*. It should be said also that, if after trial it should be found necessary for the support

of this special work, the fee will be increased. This work will be in charge of Dr. C. A. Shore, Director State Laboratory of Hygiene, and all communications on this subject should be addressed to him, at Raleigh.

RICHARD H. LEWIS,
Sect'y N. C. Board of Health.

Posture in Treatment of Pulmonary Tuberculosis.

Wise describes a method used by himself in a number of cases, with the idea of facilitating drainage from the lungs, and bringing about passive hyperemia of the apices. He has a sort of couch made, on which the patients lie face down for a certain time each day, the body forming a double inclined plane with both head and feet lower than the hips. This is said to be more comfortable than the ordinary practice of raising the foot of the couch or bed, and to be in fact, distinctly pleasant. Results are said to be distinctly good in the way of facilitating the emptying of cavities, relieving cough, and at times influencing favorably temperature, and with it appetite and nutrition.—The London Medical Lancet.

Chronic Appendicitis in Women.

S. Handley said in a recent paper before the West London Medico-Chirurgical Society that the study of chronic appendicitis had been retarded by two causes; first, by the erroneous belief that an appendix free from adhesions is necessarily a healthy appendix; secondly, by the divorce which in England exists between the practice of general surgery and that of gynecology. The most striking symptoms of chronic appendicitis were located in the female pelvic organs. Of these the most constant and important was dysmenorrhea. The history of a painful menstrual period precipitated (or brought back after its cessation) by what appeared to be an attack of acute indigestion, was very characteristic of chronic appendicitis. But the main object of his paper was to show that chronic appendicitis in women was frequently accompanied by a definite physical sign. This sign was an enlargement of the right ovary up to double its normal size, owing to the congestion and lymphatic stasis produced by the near neighborhood of an inflammatory focus in the appendix. In such cases the diagnosis of chronic ovaritis was usually made, and futile gynecological treatment was often carried out for long periods. In one of his own cases appendectomy cured a patient who had submitted without benefit to douching, blisters, tampons, and local applications to the cervical canal, over a period of five years. The appendix was free from

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adhesions, and its lumen contained a small collection of pus.—British Medical Journal.

Arthropathy in Rotheln.

D. A. Alexander has reported the case of a young man of twenty-four years, who, after a few days of sore throat, stiff neck, malaise, and moderate fever, developed a rash having the distribution and appearance of German measles, and accompanied by an enlargement of superficial glands, notably those of the neck. Before the exanthem had faded, the patient began to complain of stiffness and tenderness in the knees and ankles, and soon all the interphalangeal joints of the fingers presented the spindlelike swelling commonly seen in rheumatoid arthritis. There was no exacerbation of temperature, and neither cardiac nor other complication, and a fortnight from the appearance of the rash all the symptoms were subsiding, and in the following six months only an occasional transient stiffness in the fingers reminded the patient of the attack.—Lancet.

The Bacteriology of Bed-Stuffing.

A recent bacteriological report on specimens of rags and samples of flock used for stuffing bed mattresses, cushions, and so forth, has reached us and affords singularly unpleasant reading. In untreated rags as purchased the number of bacteria living and capable of developing in suitable nutrient media varied from upwards of 10,000,000,000 per gram to over 9,000,000,000. The number of bacillus coli and allied organisms of excremental origin was at least 10,000,000 per gram, while the bacillus enteritidis sporogenes was found in the same material. The report further shows that by the adoption of an efficient pressure steam sterilizer this flock can be reduced to a state of bacteriological purity.—The London Lancet.

Early Operations in Cholecystitis.

Riedel says that the ideal treatment of acute cholecystitis of the graver type should be analogous to the treatment of appendicitis. The gall-bladder, with the gall stones, should be removed, the operation at this stage being less difficult than later, when adhesions are formed and the condition of the patient is made worse by the chronic disease. Early operation prevents the possibility of perforation of the distended gall-bladder, as well as the dropping of a stone into the common gall-duct. He operated upon thirty-two patients in their first attack, and lost only those patients who suffered with such serious complications as thrombosis of the aorta, double

pneumonia, thrombosis of the portal vein, etc. Light cases of cholecystitis should be treated conservatively until the diagnosis is made sure of and then operation should be advised, as the danger of a severe attack is always present.—Deutsche medizinische Wochenschrift.

Large Thymus: Sudden Death.

D. F. MacIntyre was called to a child, found dead on arrival. It was three months old, nursed well in the evening, but early next morning died suddenly in a convulsion. Autopsy revealed a large thymus extending nearly the whole length of the sternum and adherent to the pericardium and pleura on both sides. It extended back to the vertebrae and seemed to occupy a large part of the thorax. The heart and lungs were healthy, but displaced by the thymus. Liver and spleen were enlarged, the former noticeably so. Stomach and intestines were normal. The left kidney was somewhat enlarged, as were both adrenals. The thyroid gland was slightly enlarged. The brain was rather soft; the pineal gland was enlarged. Death was doubtless due to pressure by the enlarged thymus on the pneumogastric.—British Medical Journal.

Rational Treatment of Infantile Diarrhea.

For years the treatment of diarrhea in children, commonly known as summer complaint, has been a stumbling block for the practitioner mainly because the true nature of the disease never was thoroughly understood. As a matter of fact, the prevention of the disease is quite easy, but as it depends altogether upon the parent who has the children in charge, neglect is always accountable for the sickness. The result is that the physician is seldom called until mischief has been done. Under the circumstances, rapid treatment has to be resorted to if fatalities are to be avoided. The main point is to modify the diet, suppressing objectionable food, particularly milk not properly modified in strength and sterilized. Meanwhile the bowels should be kept in a thoroughly aseptic condition. An experience of ten years or more has demonstrated that this is better accomplished through the use of Tyree's Antiseptic Powder; one teaspoonful or less of this powder diluted in a pint of tepid water makes an ideal washing for the intestine as an enema. Sample with chemical and bacteriological analysis sent upon request to J. S. Tyree, Chemist, Washington, D. C.

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Malignant Tumors of the Thyroid.

1. Kocher lays great stress on the fact that it is much more important that the examining physician should be able to make a diagnosis of malignant goiter in its early stages, than that he should be able to make a differential diagnosis between all the various forms of tumors. It is only by early recognition of malignancy that progress in treatment can be made. The two most suggestive signs of malignancy are increase in the size of the tumor, especially if steadily progressing, and increase in its consistency. The demonstration of a dense, compact, circumscribed area in the thyroid is very suggestive of malignancy. Sometimes the patient notices himself that the tumor has recently become harder. Further signs of malignancy are irregular surface and lessened mobility of the tumor. But it is especially important to recognize the fact that these latter two signs are not necessarily present in the early stages of growth, so that though their presence means much, their absence does not exclude the possibility of malignancy. Lessened mobility should be sought by attempting to move the tumor from above downward, and without asking the patient to swallow. The benign goiter is usually not tender on pressure, while the malignant one is often found to be so. Pain on pressure, however, is not of as much significance as are spontaneous, lancinating pains. Dilated veins, air hunger and difficult swallowing are of importance, but are usually later manifestations of malignant growth. It should be possible to make a diagnosis of malignancy on the above enumerated signs and symptoms, at a sufficiently early period for operative treatment to be of avail. When we add to the above such signs as complete immobility of the tumor, swelling of the veins in the neck, in the upper part of the chest and arms, dullness over the anterior mediastinum, enlarged glands, palpable venous thrombosis in the neck, often reaching to the arms; metastases in the lungs, or in the sternum or skull; a reddened, infiltrated and adherent skin; signs of perforation of the trachea or esophagus, with coughing up of blood and marked difficulty in swallowing; then, indeed, is the diagnosis easy, but at such a time it has no longer any practical value. Tentative treatment of these cases with iodides is a fatal waste of time in the majority of instances,—*Deutsche Zeit. für Chir.*

Dengue Fever Again.

Many of the early symptoms of dengue are identical with those of yellow fever and it is often difficult, in the early stages, to

distinguish one from the other. However, Dr. Vernon E. Smith, of Mt. Auburn, Ky., who has had a large experience with dengue, says that there is a marked difference between the two diseases, and in an article in "Medical Progress" he points out the distinguishing features. He concludes by stating that: "The prognosis in dengue fever is generally favorable, although in the very aged and in the poorly nourished infant the termination is generally death. One attack does not preclude subsequent ones, for often there is a relapse during the stage of convalescence."

The treatment is purely symptomatic as there is nothing that will cut short the attack: The greatest demand is for something to relieve the pain, and as a rule antikamnia tablets have the desired effect. The temperature, if it runs high, should be reduced by means of the cold bath or sponging, and this should be repeated often enough to keep it down. If there is marked prostration this should be combated with stimulants, of which the alcoholic are the best. The application of heat by means of the hot water bag often gives marked relief. Sulphate of quinine administered during convalescence seems to assist recovery."

The Development of Medicine in Russia.

The council of the Society of Russian Physicians in Memory of Pirogoff, on the initiative of L. V. Burtenson, has undertaken the organization of an all-Russian League for the fight against consumption, and proposes to call at an early date a congress of representatives of all the anti-consumption institutions existing in Russia in order to prepare the statutes of the league and to appoint its representatives to form part of the International League for the Prevention of Consumption. Public health is a subject of increasing interest, not only as regards consumption but other diseases, and especial attention is being paid to the effects of alcohol. The council of the Russian Society for the Preservation of the Public Health announces a competition for two prizes for the best treatises on the action of ethyl alcohol, vodka, wine, and other alcoholic drinks on the human organism. The prizes will be £200 and £100 respectively. The last day for receiving articles is May 1st (14th), 1910. They may be written in the Russian, French, or German language.

The ethics of advertising have lately exercised the minds of many of the dentists in the chief cities and at the inauguration of the new St. Petersburg Odontological Society on April 11th there was much discussion over the question of advertising

and all present resolved to discontinue advertising and to confine their signs to small sign-boards.

The question as to how far operations may be legally carried by surgeons is made topical by the case of the director of the women's private hospital, Dr. Korabevitch, who for the second time has been brought before the criminal courts because of his "daring operations" and the inquiry promises to last some time. His counsel wishes to have him examined by alienists. Thus, says the *Novoe Vremya*, "psychiatry may become enriched by a quite new form of madness."—The London Medical Lancet.

Opsonins and Bacterial Vaccine Therapy.—Ross (Canadian Journal of Medicine and Surgery) makes the following statement:

"My opinions are founded on over two years of practical experience in the treatment of a considerable number of affections due to a variety of micro-organisms. I may state that I have endeavored to analyze all my results coldly and critically, with a due allowance for coincidence and the intervention of other, though unknown, agencies. Nevertheless, I find my belief firmly established that proper inoculation with appropriate bacterial vaccines is a powerful expedient for the cure or control of many diseases due to micro-organisms. To my own mind the evidence in favor of this belief is almost overwhelming. Concerning the relation of the opsonic theory to inoculation, however, there is considerable difference of opinion. I cannot discuss this question now, but my opinion is that though estimation of the opsonic index is often unnecessary, still such investigation has been and still is of great service in enabling us to determine the dosage of a particular vaccine and the appropriate time for inoculation and reinoculation when we are in doubt. That the method of estimating the opsonic index is mathematically accurate few would have the temerity to claim, but that it is sufficiently so to serve as a useful guide in the practical application of vaccine therapy to the treatment of disease *few therapeutists* who have used the methods over a sufficient length of time to justify an opinion will deny. As a practical physician, however, I am concerned with the cure or control of bacterial disease, and I am chiefly interested in opsonic methods of investigation because I believe that they do assist me in obtaining a successful issue in certain difficult cases where in default of these methods I could use bacterial vaccines neither safely nor intelligently."

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linen, and which has a Specific Action against those peculiar pathogenic germs which infest the Genito Urinary organs Male as well as Female, hence is a

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CHAS. B. KING,

President.

An English tombstone bears this inscription:

On the 29th of November,
A confounded piece of timber
Came down, bang slam
And killed I, John Lamb.

Grand Magazine.

The Use of the X-Rays in the Diagnosis of Appendicitis and Some Other Abdominal Conditions.—Sir Bennett, in the London Medical Lancet, reports a number of cases, all of which presented symptoms simulating those of appendicitis, in which an x-ray examination revealed the true condition to be a stone in the ureter. He therefore believes that in all cases of abdominal pain or discomfort, unless the diagnosis is obvious, an x-ray examination should be made before the patient is subjected to an exploratory operation. Stones in the ureter are not the only conditions that may be found; the z-ray plate may show caseous tuberculous glands, new growths of bone, etc. The feels convinced this procedure is resorted to, cases of recurrence of symptoms after appendicectomies will be less frequently reported.

Embolism of Pulmonary Arteries Three Months After Patellar Fractures.—Strauss (Monatschrift. Unfallheilk. u. Invalidenw) says that sudden deaths in connection with bony fractures are not a very uncommon occurrence. As a rule, these cases constitute fat embolism in the area of the brain capillaries and minute pulmonary vessels, generally appearing a few hours or days after the accident. Far more rare the case; of embolism of the large pulmonary arteries, which originates from thrombotic veins in the vicinity of the fracture, leading to sudden death several weeks, or even months after the accident. The anatomical connection can sometimes be established only under great difficulties; especially in those cases where the thrombus formation failed to give rise to distinct symptoms in the lifetime of the patient, or where an autopsy cannot be obtained. In a personal observation of the author's, death from embolism of the pulmonary artery ensued three months after a transverse fracture of the patella. The starting point of the repeated embolisms was in the thrombotic femoral vein.

Retro-Caecal and Retro-Colic Suppuration (Intraperitoneal) of Appendicular Origin.—Viguier (La Province Medicine) treated 16 cases of retrocaecal abscess, with a mortality of one-third of the cases. His observations suggest the following conclusions: The appendix frequently lies behind the caecum and ascending colon, especially in children. As a natural result, retrocaecal or retrocolic abscess develops in these cases. The inflammation always attacks the peritoneum in the first place, next penetrating the subperitoneal connective tissue, and giving rise to the formation of an iliolumbar perirenal or subphrenic abscess. The symptoms of retrocaecal inflammation

are indefinite and misleading. As a rule, the retrocaecal inflammation is not discovered, and the patient comes relatively late to operation. This serves to explain the bad surgical results. Drainage towards the lumbar region is imperative in all these cases.

Concerning the Frequency and Cause of Human Tuberculosis Based on Fourteen Hundred Autopsies.—Burkhardt (Zeitsch. f. Hygien. u. Infektionskrank.) separates as does Nageli in his well known statistics, The Tuberculosis of Children from that of Adults. The number of children coming to autopsy with tuberculosis 38 per cent., as compared with 15 per cent according to Nageli.

In adults Burkhardt found, as did Nageli, 91 per cent. He gains from this material that there is evident in certain individuals a tendency to localization and spontaneous healing, while in others a tendency to a progressive, and often fatal, tuberculosis.

A New Method of Dealing with Cleft Crleff Palate.—Starr, in the British Medical Journal, suggest a change in the customary operation for cleft palate by an aluminum plate so formed and placed that it not only diminishes tension but prevents the child from sucking on the stitches. After the customary preparation and denudation of the edges and suture with horsehair, aluminum of gauze 36 in thickness is bent at an angle where he wants it to fold over the outer side of the flap, passing it through one lateral incision; then by passing a pair of forceps into the opposite lateral incision; then by passing a pair of forceps into the opposite lateral incision he grasps the free end, pulls it down into the mouth cavity again. It is carried across it at the point to which it entered and the excess cut off. With a heavy needle the metal is easily penetrated at one or two points and may be secured in place by horsehair suture. To prevent the free end scraping and irritating the tongue, it may be turned up into the lateral incision and pinched with a pair of forceps. It affords excellent results.

For Children:

R Resorcin.....
 Ichthyol.....
 Acid, tannic.....aa 6 (3jss)
 Aquae.....30 (3i)
 Sig.: To be painted on (after shaking) every night.—Baeck.

The Charlotte Medical Journal.

VOL. LVIII

CHARLOTTE, N. C., SEPTEMBER, 1908.

No. 3

The Importance of a Thorough Knowledge of Biology, Bacteriology and the Circulation of the Blood for the Successful Application of Serum Therapy.†

By Dr. J. C. Grady, Kenly, N. C.

Mr. President and Gentlemen of the North Carolina Medical Society:

The subject I have selected for my paper is supposedly a physiological one. The study of the circulation of the blood biology and bacteriology and their relation to serum therapy, but should I digress somewhat from the letter of my text, to contiguous subjects, I beg your pardon and kind indulgence in advance, while I attempt to rehash these old and thread-bare subjects, so inseparably connected with *serum therapy*. I do not expect to be able to advance any new ideas along these lines; but if I can succeed in provoking a discussion of the subject, then the object of my paper will be attained. The uses of the circulating blood may be summarized thus: It is a medium for the reception and storing of matter; that is, oxygen and digested food materials from the outer world for convenience to all parts of the body. It is also the source from which all the various tissues of the body take the materials necessary for nutrition and maintenance, and whence the secreting organs get the constituents of their various secretions. It is also a medium for the absorption of deleterious or refuse matters from the various tissues and their conveyance to the eliminating organs for their expulsion, lest the system become by auto-intoxication her own destroyer.

It seems to me that a thorough and concise knowledge of the chemical constituents, biological elements, physiological and opsonic functions of the blood together with its course and manner of travel over the system is absolutely *indispensable* and merits our most painstaking study and consideration, if we would elucidate the mysteries and solve the problems of serum therapy and understand the important role the circulation plays in physiological and pathological processes. As you know, for the last few years there has been a great tidal wave of *chemical and bacteriological* research sweeping over this country and Europe. The human blood has been subjected to an endless variety of the most critical and

searching tests, and this bacteriological crusade has put scientists and medical men everywhere on the alert hunting for a more satisfactory aetiology and a more dependable treatment for the ills that afflict humanity. Medical and scientific men have been standing with microscope and chemical retort in hand striving to recognize and capture the baneful micro-organism or materies-morbi that fosters disease and engenders death, and while as yet the goal has not been attained, many new and startling truths have been evolved, many false and erroneous theories exploded, and many valuable improvements *added* to our rapidly increasing knowledge of bacteriology and serum therapy. Many of these innovations and improvements are things *too* that only a short while ago would have been considered unreasonable and visionary in the extreme, if not downright medical heresies. Conspicuous among these may be mentioned *Wright's Opsonic Theory* of injecting into the blood certain specific bacterins or serums that will so stimulate phagocytosis or the opsonic power of the white blood cells that they will become little corpuscular cannibals that will destroy and drive out every disease germ in sight and render the system absolutely sterile and immune against them.

So you see how essential it has become in these days of change and rapid scientific *thought and discovery* that physicians should keep themselves thoroughly informed on all physiological and biological subjects, and especially those that pertain to the circulation of the blood, bacteriology and its most powerful ally, serum therapy. The blood being the principal medium through which and into which the various bacteria toxins and other poisons must enter the system and find lodgment preparatory to beginning their nefarious work of tissue poisoning and destruction, we should endeavor to learn some plan of preventing their entrance, of combating their presence and off setting their methods of proliferation and development. We need to study their individual characteristics and learn their haunts and habits that we may be able with our anti-toxins and blood serums to break into their strongholds, tear down their fortifications, and drive them from their entrenchments in the human system, and at some time in the near future we expect to be able to do this in almost every case of germ infection by the application of appropriate bacterial serums just as we

†Read at the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C.

now by inoculation with vaccine virus counteract or destroy that certain pabulum toxine or what not in the blood that feeds the germ of smallpox. Now you would hardly expect a man to recognize a pathological condition in contra-distinction to the physiological one, if he were unfamiliar with the physiological. Therefore, in order to understand and fully comprehend serum therapy, one must familiarize himself with the different influences and agencies that conspire to bring about its peculiar manner of action; hence, the importance of physicians keeping themselves at all times thoroughly informed on the circulation of the blood and its normal physiological functions, together with a corresponding knowledge of bacteriology and pathology as an aid to a correct understanding of *disease* and the application of the serum treatment.

Now, inasmuch as the food after digestion becomes absorbed by the lacteals and lymphatics and is carried by the portal or lesser circulation directly to the liver, the blood to that extent becomes an accessory of the digestive process for the ultimate purpose of nutrition and tissue building, which process is accomplished by the food elements being conveyed to the different parts of the body and tissues by the circulating blood current.

Here we see what an important part the circulation plays as a carrier and the power it has and may exercise in the inoculation and spread of disease germs through the human system. Should they enter the system by the stomach, they are carried by the portal circulation to the liver and systemic circulation through which not only materials for repair are conveyed, but disease germs and curative agents as well, by being taken up by ingestion and absorption along with the food and carried through the portal circulation to the systemic circulation and tissues at large.

So we see while the portal circulation is primarily a carrier of nutrition, it may also become the purveyor of deadly disease germs or be utilized for the better purpose of conveying curative agents in the form of anti-toxins. Therefore, it is this phase or circulation that we wish to study and strive to better understand and learn to more frequently utilize as a carrier of anti-toxins and medicaments to the diseased tissues which in combination with the ingested and digested food elements are transported directly to the liver.

Leaving the liver, it then goes to the right side of the heart with its normal constituents and toxins or anti-toxins, thence to the lungs, performing again the same office, and in addition giving off some of its pois-

onous gases for oxygen. Thence, it goes to the left side of the heart where together with its death-dealing toxins or its life-giving nutriment and medicaments, it is poured into the general systemic or arterial circulation either to poison or to purify the whole life-giving stream. So you can easily see how bacteria and disease germs and their antagonistic serums, whether entering through peripheral lesions or by ingestion and absorption, can be rapidly disseminated by the simple and normal process of the circulation of the blood, and how poisonous germs or medicaments that may enter or become injected into the circulating fluid, either from within or without, may easily gain access to the cells and tissues of the entire body.

Oftimes, the tissues and cells of the body become so weakened and overpowered by toxins and disease germs that natures' unassisted forces are unable to properly police the system until her diminished and impaired opsonins are replenished and rendered adequate to the task of driving out these hordes of invading microbes that have entered it and caused natures' powers to be overthrown and the energy of her immunizing and opsonic forces to be lost; then it is that we may be able by an intelligent understanding of the blood and circulatory apparatus and the vulnerable points of microbic life, by the use of hypodermic or intravenous medications and those which can be administered by ingestion reach and counteract or neutralize these invading toxins, ptomaines, and other poisons, before they become fully established in the system.

For as we have already seen, medicaments as well as poisonous germs can be rapidly taken up by absorption from the digestive tract and passed along with the ingested and digested food to the portal circulation, and thence to the general circulation of the entire body, either to the restoration and preservation of its health-giving functions or to the poisoning of the tissues and the destruction of vital processes. So you can readily see how the germs of anthrax, syphilis, pellagra, tuberculosis, typhoid fever, the pneumococcus, the streptococcus, and all that horde of nameless disease germs, after gaining entrance to the circulation, may rapidly disseminate themselves throughout the body.

Now when we remember that the blood makes a complete circuit of the whole body every twenty to thirty seconds, then we can begin to appreciate to some extent the danger and power of the blood current as a germ carrier, and also obtain some idea of its importance as a disseminator of curative serums when injected into its current to stimulate its opsonic forces to resist disease

and keep our bodies to the standard of health. This process will be accomplished in direct ratio to the opsonic index of the blood cells and in proportion as the tissues receive and contain a normal and sufficient supply of healthy blood in every part of her vessels and circulatory apparatus.

In this way the requirements for the health of the organism will be met and the whole scheme of life and health will resolve itself into the one condition, that we keep the circulation of the blood through the different parts of the body continually active and the opsonins in the blood up to the normal standard of their working capacity.

Whereas, should we fail to do this the circulation will at once become impaired and sluggish, its vital functions altered, its opsonic powers diminished and inefficient to the dangerous extent that we must immediately multiply physiologically, artificially, or otherwise. These deficient opsonins, by the injection into the blood of appropriate bacterial serums to the end and in such quantities that they will accelerate the action of the heart and circulation and restore to nature her lost physiological balance, and enable her to drive out and resist these invading toxins, preserve, maintain, and perpetuate the health, life and well being of the organism against the malign and deadly influence of the elusive microbe.

Ever since the day Mayerhofer isolated the streptococcus pyogenes from the blood of a dead puerperal woman and Pasteur produced living cultures of the same and demonstrated it to be the principal cause of puerperal sepsis it has been the dream of the profession to produce a serum with which the poisoned stream of a woman's blood can in some way be reached, either by direct injection into the blood or by ingestion and absorption through the stomach. I believe that Mulford and other makers of anti-toxins and bacterins are experimenting in the right direction, and who knows ere another decade shall pass but that we shall make even greater conquests over this terrible scourge with blood serums and bacterins than we have in the past with cleanliness and antiseptics until the horrors of the puerperal state shall become a by-word of the past?

I believe that right along this line of serum therapy we have the richest unexplored field of medical science and it devolves upon us as physicians to develop it to the end that we must familiarize ourselves with and take advantage of every agency and circumstance that bears upon it, or that will in any wise aid us in our undertaking, whether it be the circulation of the blood, chemistry, bacteriology, pathology, or any other closely allied subject,

we want to study the hemolytic, as well as the anti-toxic, action of bacterial cultures on the human blood, since there is unquestionably a significant relation between them not yet thoroughly understood. We want to obtain a more definite knowledge of the powers and functions of the anti-bodies found in blood serum and get a better working knowledge of the germicidal properties of the normal circulating blood in order that we may gain a clearer insight into the combining and resisting powers of healthy human serum.

We have already learned that there is great variation in the capacity of different normal systems for appropriating and assimilating immunity-giving serums. And we would also like to understand the manner by which the babe appropriates the mothers immune bodies in the milk and why it is that when nature-furnished nutriment is supplanted and artificially prepared food substituted so many infants wither and die like tender grass before a killing frost. By the acquisition of just this one item of knowledge we may be enabled to wonderfully lower the high mortality rate among bottle-fed infants. We want to look in at the open door that leads to a knowledge and explanation of the normal activity that controls cell multiplication and the process which occurs in the circulating blood called autolysis or self-digestion of inflammatory exudates, and try to understand how the production of these agents or ferments are brought about and controlled by the system. In short, we want to study the circulation of the blood in all of its relations to serum therapy, and serum therapy in all of its relations to the circulating blood because the two are so closely related, interwoven and interdependent that, to understand the one, we must necessarily understand the other. And the acquisition of a comprehensive knowledge of both will wonderfully aid us in grasping the thousand and one intricate and puzzling clinical phenomena connected with the blood and serum therapy.

Venesection: Its Indications and Uses as a Therapeutic Agent.†

By W. M. Lyday, M. D., Penrose, N. C.

General blood letting from the general circulation, usually by opening of a vein of considerable size, sometimes by opening an artery or the abstraction of blood from the capillaries and smaller vessels of congested or inflamed areas by leeches, scarification and wet cuffing.

Venesection is a therapeutic measure of

†Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June, 1908.

the greatest utility in properly selected cases and many another agent of great usefulness has by abuse been caused to fall into undeserved disrepute.

The present paper will therefore chiefly be devoted to general bleeding. This art, practiced for centuries more or less universally, has of late years in this country fallen into disfavor. Much discussion has been raised as to the grounds for so great a difference. It has been attributed, 1st, to the type of disease having undergone a change; 2nd, to mere fashion; 3rd, to a better knowledge of the nature of disease, teaching us that its processes were of a depressing or lowering character which were to be overcome by the more general use of drugs which control circulation, as well as of stimulant and support. Their probable cause, which contributed most to the change, was that venesection was a universal panacea for all diseases, especially of those diseases that were characterized by extreme depression, as epidemic cholera, typhoid fever, influenza, malignant dysentery. In such diseases if antiphlogistic measures were adopted they proved failures and taught physicians that blood letting was not the universal panacea it was supposed to be. By degrees it ceased to be practiced as it used to be.

A new generation which knew not of the past has sprung up and as in all reactionary movements the practice has almost ceased to be a therapeutic measure. It is almost that in either extreme there is an evil and that we may have recourse in certain cases to abstraction of blood with great benefit, which formerly lead to its abuse.

It will be well to consider the subject at some length and under the following heads:

1st. The effect of moderate losses of blood on the healthy economy.

2nd. The value of bleeding as a remedy in disease with the indications for its employment in various affections.

First effect we have, first then to consider the effects of moderate losses of blood upon the healthy economy. Upon this point we have abundant evidence for the custom of regularly bleeding, healthy people had reached such a point during the early part of the past century that in country districts it became a habit for adults to be bled as regularly as they went to market. No better testimony regarding the effects of this practice could be adduced than that of Sir James Paget who says when referring to these customary venesections that "I can regard those as a series of venesection fairly performed for the determination of what is the influence of the removal of blood up to the point of syncope upon a comparatively healthy person, I think I can say surely

that not one of these persons suffered harm." To this might be added other and abundant testimony to the harmlessness of moderate venesections on the healthy economy.

The effects of the operation on the blood is interesting, for after bleeding the fluids of the tissue are rapidly taken into the blood vessels to restore the diminished volume of the blood, thus increasing absorption and relieving congestion, leaving the quantity the same as before and the quality in a more dilute form.

Indications and Uses.—Broadly stated it may be said that bleeding is indicated when there is evidence of marked over distension, either of the arterial or of the venous system. In either case the results will be cardiac distension; in the former case of the left and in the latter of the right chamber of the heart. In such conditions general bleeding restores the lost equilibrium of the vascular system and relieves the heart and the other parts concerned in the circulation of the blood. It may in general be said to be diminution of the circulatory excitement, relief of congestion, inflammation and pain lessening of nervous irritability, production of muscular relaxation and the removal of poisons contained in the blood. When these conditions are associated with a full and tense pulse, particularly when accompanied by evidence of pulmonary engorgement and an over worked and failing right ventricle by signs of cerebral congestion and venous stasis.

Pneumonia.—Blood letting in pneumonia is indicated in healthy patients suffering from uncomplicated acute sthenic pneumonia, if they happen to be seen early enough it relieves pain, aborts fever, and if it does not correct the disease it certainly appears to lessen the duration. It may also be called for when there is severe pain and cardiac embarrassment. Excruciating pains radiating through the chest denotes involvement of both lungs, and a bad sign during the first and second stages is more successfully treated by copious venesection than by any other remedy.

In intense dyspnea with profuse frothy sputa, moist rales in the uninflamed parts of the lungs, sudden, sinking drowsiness, coldness of the skin are signs of carbonic acid poisoning and great danger of beginning œdema, our best remedy is free blood-letting. To illustrate the good effects of venesection I will give a case: Was called to S. S. O., whose daughter had recently died of pneumonia, and found him with excruciating pains radiating through the chest, great dyspnea, profuse frothy sputa, moist rales all through both lungs, pulse 136, temperature 104, respiration 38, skin cold, extensive hyperemia and œdema.

Prognosis: will die within 36 hours. Treatment; opened the basilic vein and bled until there was a decided impression made on the system, which required about 16 oz. Effect in one hour, pain and dyspnea relieved, pulse 120, temperature 102, respiration 24, skin moist and warm. Next morning, rested well during the night, temperature normal, pulse normal, pain gone, made an uninterrupted recovery without other medication.

Numbness of limbs, slight convulsions, coma, somnolence, are signs of œdema of the brain, and venesection is our most reliable therapeutic agent. In the course of pneumonia or pleurisy, when intense dyspnea develops, with moist rales, serous sputa, feeling of fullness and compression, causing fear of death, heart beats visibly, the radial and carotid arteries, extension hyperemia and œdema, the danger is imminent, unless relieved by blood-letting to effect.

For threatened apoplexy regular copious venesections will be our best remedy, not only obviating the tendency to death, but has saved the patient's life. The treatment of threatened apoplexy due to hypertrophy of the heart requires prompt venesection.

Puerperal Convulsions.—This nerve trying condition had formerly been viewed with well deserved dread, for the reason that it was largely incurable, in fact it is within the limitation of exact truth to say that there was a time, by no means very remote, when what few cures did occur should properly be credited to Dame Nature herself rather than to the attending physician.

Though still at sea concerning the real cause of the convulsive seizures experience has taught us a reliable treatment. Our knowledge of the supposed cause has also improved enough to make it seem that the condition is one of auto-infection, involving either the liver or kidneys, or both, for both have been found diseased post-mortem in these cases. The general indications for the preventive treatment in these cases may, therefore, be said to consist in elimination, in the robust patients copious venesections followed by diuretics and aperients.

For the actual convulsion, either before, during, or after labor, there exists the double indication calling for the rapid elimination of the toxicant, and this is effected most successfully by copious venesection. This is a specially desirable method in the full blooded, though also applicable in other. The object is to relieve blood pressure, produce relaxation, and abstract a certain amount of the toxins from the blood itself. Bleed to effect sufficient to control circulation.

Acute Nephritis not Complicated by Preg-

nancy.—In severely acute case of nephritis, active congestion may cause almost complete suppression of the urine, aching in the back and loins, an unusually pronounced uremia. Venesection is our most efficacious means of relieving this condition. It relieves congestion and depletes the kidneys, and renders the case more easily and successfully managed. To illustrate: Was called to Mr. P.; age 42; had been sick 48 hours; found temperature 103½; pulse 120; great dyspnea; urine very scant, almost complete suppression; highly albuminous and bloody; pain in back, loins, and severe headache; beginning of general anasarca; pronounced uremia. Treatment.—Copious venesection; hot fomentation from shoulders to loins; saline purgatives and saline diuretics. In six hours temperature 100; pulse 80; skin moist; head relieved. Next morning, Symptoms all relieved; free flow of urine. Made an uninterrupted recovery without further treatment.

I believe that one of the principal reasons why blood-letting is not more commonly employed is owing to the lack of actual experience among teachers and the enormous amount of medical literature which is published against the employment of this most useful and certain remedy in suitable cases.

I believe firmly, and such has been my personal experience, that nothing can take the place of blood-letting at the commencement of nearly all inflammatory affections. In sthenic, plethoric individuals, in pleuropneumonia it is especially indicated. I hope that within the next few years there will be found many more medical men carrying lancets, both clean and sharp, ready for emergencies.

Carbuncle: Its Etiology, Pathology, &c., with a Treatment Commended.

By Thos. E. Anderson, M. D., Statesville, N. C.

Mrs. President and Gentlemen of the North Carolina Medical Society:

My apology for afflicting this society with this somewhat homely and melancholy subject will find justification, I hope, in a treatment which I propose to exploit.

First, let us take a glance into the etiology, pathology, &c., as viewed by present day observers. Carbuncle was formerly looked upon as a peculiar, mysterious disease, having a pathological process of its own, with little or no relationship to any other disease, either in its etiology, its pathology or its indications for treatment. And owing to the allurements of visceral surgery, and the more remunerative and

•Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June, 1908.

inviting fields in the dark unfathomed caves of the human organism, we are still in bondage to the traditions of the older pathologists, this being one of the more common diseases which have received scant attention.

In this belief, I essay to ascertain and correlate what is known of the cause, nature and treatment of carbuncle. The observation has often been made and should be reiterated that the names anthrax and malignant pustula should no longer be used interchangeably with carbuncle. To avoid confusion, the former (anthrax) should be only applied to that disease of the lower animals, which is contagious, sometimes communicated to man, and is caused by the "anthrax bacillus," while the latter term, carbuncle, should be reserved exclusively to designate the disease under consideration.

Carbuncle is a disease of microbic origin like all of its class. This being abundantly demonstrated by several observers, of whom Gawe, Bockhardt and Baum are most prominent. The micro-organism most frequently found is the "staphylococcus aureus." In the minority cases there are present also the staphylococcus albus or the streptococcus pyogenes, or the two together with the first but always outnumbered by it. The coccus may enter the skin, through the hair follicles, the sebaceous gland ducts, the sweat glands, or an abrasion of the epidermis. The theory of entrance to the body through the alimentary canal or respiratory tract is by analogy an entirely tenable one. We are nowhere more in bondage to the traditions of the elders than in the belief that this disease is of constitutional origin; the notion that it is a disease of the cachectic, the alcoholic, the tubercular and the diabetic was readily accepted and easily believed before local causes were demonstrated. The most that can be rightly claimed for the constitutional factor is that it lowers the general resisting powers, increases the vulnerability of the tissues and thus allows free entrance to the *casus morbi*. Even the diabetic so prominently associated with carbuncle does not often have this complication. Though there are no statistics at hand to prove it, it is a matter of doubt whether it is found more often among the cachectic classes, than in those of good health. This idea of ascribing it to the cachectic probably grew out of the fact that statistics were gathered more from almshouses and public houses, rather than from practice. However this may be, it is certain that who ever ignores the local origin and local nature of the disease, scatters abroad, and is handicapped and disarmed in the proper treatment of his patient.

Carbuncle is a disease of middle life,

while furuncle is a disease of the adolescent. Viewed pathologically, carbuncle is an acute suppuration of connective tissue and hence is generically related to osteomyelitis, parenchymatous abscess, acute abscess, furuncle, and other suppurative diseases of the skin. The region of predilection of carbuncle is the dense and fibrous integuments over the posterior median line of the body. The skin of this region is characterized by its extreme thickness, especially the relative thickness of the cutis vera, and the aponeurotic like density of the papillary layer, and its having few and small openings. The pus coccus having passed down and invaded these tissues, a focus of inflammation is begun, and we have all the factors and conditions necessary for the production of a typical carbuncle. The delicate areolar adipose tissue succumbs and liquefies, and as tension increases pus is forced to the surface by means along the lines or of the hair follicles, its only avenue of escape; as tension increases the inflammation is forced to extend laterally farther and farther from the original focus, and thus we have the hard elevated outlines.

As my object in this paper is purely or mainly to call your attention to a mode of treatment which I have never seen advocated up to this time, and which gave such prompt relief in a case falling under my care, I shall not longer incorporate into this article the painstaking research of another from whom I have culled most liberally—a paper read before the last Pan-American Medical Congress, at its last meeting in Washington City, by Dr. D. W. Graham, of Chicago, Ill. The data in the usual channels being very meagre. The history of means and methods of treating carbuncle would fill a volume. Many good surgeons advocate a purely expectant course and discard all active means, relying on internal medication, and treating it as a self-limited disease. Caustics, incisions, single, multiple, and the honored crucial incision are relied on by others. These are to be recommended in the absence of more efficient means, but they all fall short of the end desired. Then the method of injection of dilute carbolic acid and various antipyretics has its advocates. But it is not my purpose to review and compare discarded or prevalent methods, as a substitute for all of these I would advocate "*total extirpation*" of the indurated mass, just in the same manner as we would remove a benign tumor. And if this is done early the entire skin can be saved, as was demonstrated in the case which I am about to relate.

Along in the early spring Mr. M. B. M., aged about 45, in a somewhat run down state of health, one of our most enterprising

and wealthy citizens, was the victim of this most malicious foe to happiness. The site elected for the exhibition of its relentless-ness was the one most popular—namely, the nape of neck. Commencing by darting pain, soon heat and swelling, it surely and steadily fastened itself upon him, and while a man of large possessions he became entirely oblivious of all except the possession of this vicious carbuncle. I tried various and sundry applications, the meanwhile securing for him some relief by full hypodermic doses of morphine. The symptoms hourly grew worse, heat and swelling increased; the whole back of the neck being red and tense; there was some delirium and color suggested septic influences at work; the patient was anxious and apprehensive, indeed I feared meningitis might ensue. The sources of our knowledge—the books—availed me but little. The tumor by this time elevated and outlined, a hard mass. It occurred to me that while the skin still maintained its integrity why not make a cross incision and dissect out the involved tissue? Calling my able friend, Dr. H. F. Long, to my assistance, who after some deliberation fell in with my idea, we proceeded without delay to anesthetize him, and under the rules of modern surgery entirely removed the indurated mass, first carefully dissecting back the skin, packing with iodoform gauze, suturing the edges of the skin together and applying over all a liberal supply of same gauze completed the operation.

Fever, pain and all the existing evils at once subsided; he did not need another dose of an opiate; his exiled smiles returned and he made a prompt, though somewhat slow, recovery, as the excavation had to fill up by deposit, yet there was no more pain and much time was gained over the slow processes of suppuration, not to speak of the wasting of the body and the sleep murdered.

I had never seen or heard of this procedure before, though many here may be familiar with it. I offer it to those unfamiliar with it and commend it as the best way to subdue this stubborn and painful foe.

A Case of Myxoedema Closely Assimilating Bright's Disease; With a Note on the Treatment of Renal Albuminuria by the Administration of Hydrastis Canadensis.

By Richard N. Duffy, M. D., Newbern, N. C.

The following case is of interest for two reasons: First, in showing the effect of hy-

drastis on renal albuminuria; and second, in showing how easily one may be misled in the differentiation of chronic nephritis from myxoedema.

Mrs. M., a white woman, 53 years old and a native North Carolinian, was first seen by me on December 31st, 1907, complaining of "swelling of body," etc. She gave the following history:

She is a widow and has had five children and two miscarriages. Her father and mother both died of "paralysis." She was delicate as a girl. Had chlorosis at nineteen years, "typhoid" fever when her first child was born. Pneumonia nine years ago. She has had a great many chills and fevers. Her appetite and digestion are usually good and her bowels regular. There has been no evidence of chronic pulmonary involvement. She has had some shortness of breath for about a year. Has had to get up about three times every night to urinate for the past year or two. Her urine has at times been cloudy. She has never noticed any blood or any burning or any pain on urination.

Her menses were regular and painless until June, 1907. At this time the flow lasted 28 days. It appeared slightly on July 1st. The latter part of July she had two severe hemorrhages. She passed large clots and became almost exsanguinated. About this time her abdomen began to swell. She has had swelling of her hands feet and eyelids for about three years. She began to grow stout about three years ago and has gained 43 pounds in this time.

When her abdomen began to swell after the hemorrhages last summer she went to Dr. Stokes' Sanitarium in Salisbury, and was operated upon, a pan hysterectomy (?) being done. Before the operation she felt "tired out," as she expresses it, all the time. Immediately after the operation she was very much better but has since grown worse.

She now feels tired out most of the time. Wakes up tired in the morning. Her appetite and digestion have remained fairly good and her bowels regular. She sleeps fairly well but often in the early part of the morning wakes up with choking sensations and feels as if she were going to die. Her lids are sometimes so swollen that she can hardly see. She tires very easily and sometimes has dizzy sensations. Her throat often feels full and tongue thick and it seems difficult to talk. Her memory has become defective and she is suspicious and irritable. There has been some numbness in the left leg.

On examination it was noted that the patient had a stupid "toad-like" look. The face showed a pasty pallor. Eye lids were

†Read before the Medical Society of the State of North Carolina. Winston, North Carolina, June 17, 1908.

œdematous and translucent even. The whole face seemed swollen. The mouth was large and lips and tongue thick. The tongue was protruded in the mid line readily and was not tremulous. Eyes were normal in appearance and movements except for their dull and stupid look. It was noted that the patient was extremely garrulous. Her pulse was 20 to the quarter, regular in force and rhythm and of good volume. The tension was only slightly above normal and the vessel wall just palpable. Her hands were dry and skin dry and harsh all over her body. It felt also distinctly thicker than normal. The thyroid gland was not palpable. No tremor of hands and no ataxia. No signs of paralyses. There was no general glandular enlargement. The nutrition of her hair was defective.

The heart and lungs showed no abnormality.

The abdomen was full. Panniculus well marked and skin thick and harsh. A well healed scar of operative wound was seen in the mid line below the umbilicus. No masses could be palpated in abdomen and there was no tenderness. Neither kidney nor spleen were palpable.

Skin over shins and feet was observed to pit slightly on pressure. Skin elsewhere on body did not pit on pressure though having an œdematous appearance. The "kneekicks" were active. Babinski's sign was not present.

Examination of the urine revealed a heavy ring of albumin with Heller's test (at least $\frac{1}{2}$ of 1 per cent. of albumin). The urine was slightly acid, yellow in color, clear, specific gravity, 1.030; no sediment. The centrifugalized specimen showed epithelial cells, white blood corpuscles and numerous hyaline, finely granular and epithelial casts.

My first impression of the case was that it was one of myxœdema, but after an examination of the urine, the diagnosis of chronic nephritis was made. I failed to state that the urine of this case had been examined repeatedly sometime previously by several other men suspecting Bright's Disease without finding a trace of albumin.

The patient was put on a limited diet, advised to take a daily tepid bath, to keep her bowels open and take a moderate amount of outdoor exercise. She was given Bland's pills grs. 5, three times daily after meals and strychnia gr. 1-40 three times daily before meals.

There was only slight improvement under this treatment and on January 7th, after having heard of my Father's and Uncle's (Drs. Chas. and Frank Duffy) experience with Hydrastis in the treatment of various forms of Bright's Disease, she

was started on Fl. Ext. Hydrastis gtt. 20 every two hours. On January 25th, it was noted that her condition was somewhat better. Her nights were much better and she was not so tired out. There was, however a great tendency to drowsiness. Her general appearance remained about the same. The Hydrastis was increased to gtt. 30 every two hours.

On January 28th, the albumin had decreased to one-fourth the original amount. The Specific gravity of the urine was 1.010. On February 5th, the albumin was reduced to one-eighth the original amount. The patient's symptoms were somewhat improved though her appearance remained about the same. The Hydrastis was now given in 30 gtt. doses every three hours.

The patient continued about the same. The albumin gradually decreased in amount until February 27th, when she complained of much nausea, severe vomiting and dizziness. This was attributed to uremia, but an examination of the urine at this time showed marked improvement and the patient complained bitterly of the Hydrastis. This was stopped and condition soon cleared up after purgation, sweating, etc.

The Hydrastis was not given again until the nausea had been absent for several days and was then given in teaspoonful doses after meals. Some cases do not take Hydrastis well. There seems to be a cumulative action which finally ends in severe nausea and vomiting. This patient, for several days before her attack, complained bitterly of the constant nauseating taste of the Hydrastis and when she first began vomiting she said it seemed to her as if she were vomiting pure Hydrastis. Very large single doses may be borne with impunity, but constantly repeated doses are in some cases apt to have a poisonous effect. It seemed in this case, after reconsidering the facts, that her vomiting was due to the action of the Hydrastis and not to uremia as was first thought. Since this time she has been cautioned to stop the Hydrastis immediately as soon as she began to be disturbed by its nauseating taste and since following this plan she has had no other trouble.

The patient has continued the Hydrastis up to the present date with steady improvement in the condition of the urine. Notwithstanding this, her disability has constantly progressed and her appearance has not been improved as one would expect it to be considering the improvement in her urinary condition.

On May 23rd, an examination of her urine showed only a very slight trace of albumin and only three hyaline casts were found in the centrifugalized specimen.

Thinking it most peculiar that if the case were one of chronic nephritis pure and simple, there was not more marked improvement in the patient's general appearance and symptoms, considering the very marked improvement in the urinary condition, my original diagnosis of myxœdema was reverted to and the patient given one grain of thyroid extract after each meal. There has since been marked improvement. In about three weeks time on this small dose the patient lost six pounds in weight. Her appearance became much more animated and intelligent, and her strength rapidly increased. The dose of the thyroid extract has now been increased to gr. 2 three times daily after meals and will be gradually increased to grs. 10 or 15.

Her improvement continues and the case evidently seems to be one of those cases of myxœdema which are complicated by renal involvement. The marked effect of the Hydrastis in lessening the amount of the albumin and the number of the casts is especially noteworthy.

[In a later note the author of the above says: "Since the paper was written, the patient has practically entirely recovered under the Thyroid Extract and Fl. Ext. Hydrastis. She lost 33 pounds in weight and is now a bright vivacious woman, able to attend intelligently to her business and other affairs, whereas, only a little over a month ago, she was a stupid, toad-like creature and a great care to her family. Both the albumin and the casts have disappeared entirely from her urine."—E.D.]

Therapeutics an Art.*

By W. H. Boone, M. D., Morrisville, N. C.

No other department of medical science is more important than that of therapeutics. It not only offers a corrective for pathological phenomena but a restorative for morbid anatomy. It maintains physiological function and makes the execution of hygienic measures possible. The excuse offered for presenting this paper, therefore, is to accuse the profession of therapeutic inefficiency, and to discuss lines of improvement. In the rapid progress of the science of medicine during the last few decades therapy has not kept pace with other branches. There was a time in medical history, however, when it held first place, and a medical adept meant a therapeutic expert, but now it rather means a skillful pathologist, diagnostician, surgeon or some other necessary appendix to what should be the real branch. It is true that specifics

have been discovered, certain serums proven to have wonderful antitoxic and immunizing power, and many drugs purified and standardized, all of which proclaim advancement; but because of wide physiological variations and very wide pathological deviations, coupled often with unreliable drugs, it follows that therapy is an art requiring skillful adaptation and cannot be reduced to an exact science of mathematical quantities.

The reduction to correct exactness of the principles of other branches in the field of medicine has caused the profession to a certain degree to lose faith in the efficacy of drugs to accomplish results, and is therefore timid in its administration and seeks to dodge by throwing the responsibility of all failures upon the Lord, at the same time assuming credit for all the Lord's achievements.

The physician is like a soldier who meets an enemy, shoots at random and hopes for victory. The gun is alright, the enemy is in view, but he is not an artistic marksman and looks in faith to Mars, the God of War, rather than his gun for success. Nature, the doctor's god has great compassion both for the doctor and his patient; covering the mistakes of the one and healing the ills of the other, in spite of the drugs shot at random to the contrary. It is a cause for professional shame that we abuse the goodness of this amicable friend by being careless, indifferent and skeptical; careless in looking for the actual cause of physiological distraction, indifferent to prescribing directly and definitely to the removal of such distraction, and skeptical as to results to be obtained by drugs other than palliative in correcting pathological processes and restoring normal function. To substantiate this accusation I submit as testimony the prescription files of any drug store in North Carolina. I submit the lists of any proprietary drug mixing house in America. I submit the bewildering therapeutic opinions of any representative medical assembly on record. The submission of further testimony is considered unnecessary accumulation, and we ask you first to critically inspect the prescription file. Here you will find chemical incompatibles, physiological antagonists, and a greater number you may class in the shot gun variety; the first shows a lack of the chemical knowledge of drugs, the second proves a deficient understanding of their physiological action, and the third asserts both a diagnostic incapacity and a therapeutic inability. The manufacturing pharmacists or drug mixing people are both a blessing and a curse to the profession. A blessing in that they manufacture from nature's crude store house clean, pure ex-

*Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June 16-18, 1908.

tracts, &c., indispensable in modern therapy, but a curse in that they take the initiative in compounding and mixing formulæ and urging their use by the profession,—claiming practical merit that is only theoretical.

They advertise their stuff like patent medicine concerns and seduce the therapeutic artist to befuddle himself with quackery, to desist from individual experimentation and observation and to become a rusty scale upon the polished art.

The therapeutic opinions of a representative body of physicians like this which I submit without much comment is alone sufficient evidence to warrant the case, for we are all agreed on bacteriology, chemistry, pathology, etc., almost absolutely; but how many of us can be found to agree on any one point touching therapy.

Gentlemen, have you ever thought what an easy thing it is to pour a decoction into the belly of a fellow, who is racked with pain, distressed with nausea, or prostrate with exhaustion? He appeals to a physician who, in the goodness of his heart, yearns to appease the anguish of both mind and body; or it may be, to air his own medical alertness; gives a dose, to be doing something, that satisfies his anxious friends, while the doctor looks the look of confidence and awaits a result in hope, conscious of having imperfectly fulfilled the mission for which he was summoned. The surgeon, the physician looks upon as a sort of superior, with a steady nerve, a dexterous hand, and unqualified diagnostic ability, capable of bearing responsibility and of assuming charge of complex maladies, such as therapeutic indefiniteness has failed to relieve. It is a God-send that we have the surgeon among us and we hail him with honor and brotherly love. It is because of the recognized success of surgery and therapeutic inaccuracy that the young doctor, zealous for honor and recognition, manifests a thirst for gore at the edge of his scalpel. Let us glory in the steady march of surgery and the life-saving methods it offers, but let us not lose faith in drugs,—for what the instrument case is to the surgeon, the medicine case is to the physician—only more so. In my humble estimation the doctor who gathers evidence through careful examination passes judgment upon the pathology existing and prescribes with simple definiteness to combat the malady, is the greatest master in the field of medicine. This master is more of an ideal than a reality, a mental picture of a possibility, a standard of efficiency to be sought after.

An optimistic view reveals a brighter day for medicine when the pendulum of professional enthusiasm ticks the extreme in

surgery and swings back to the art of therapy.

God made man, He made the disease-producing microbe that infects him, and He likewise stored in nature the remedy for his restoration. It is the task of the physician, therefore, to discover and prescribe remedies that will successfully combat the ailments of mankind. In the light of modern research, aided by chemical and physiological laboratories, together with unlimited clinical material, the opportunity is afforded the physician to discriminate in the selection of remedies and to ascertain their uses and limitations. Having attained this ability and also having skill to judge a distinct indication for their use, constitutes the art of therapy. First, to discriminate in the selection of remedies is very important. There are so many new drugs upon the market today, that it is impossible to test them all, notwithstanding there are physicians who pride themselves upon prescribing every new drug, in order to show themselves progressive. They have a lot of remedies, especially new remedies, for every disease. They have not yet, as some one has said, developed to the point of one drug for several diseases. It is necessary, however, to remember that while we have average data for nearly everything connected with the human being, we have to treat every patient individually. Therefore, while it is wise to select and depend upon a few drugs, knowing well their good and bad effects, yet it is expedient to have a well selected reserve for irregularities and idiosyncracies.

With respect to the use of drugs we will class them as symptomatic and causal. While it is very necessary to relieve a symptom that is endangering life, such as, for instance, alleviation of high fever, the soothing of distracted nerves, the stimulation of vital centres in case of depression, and the supplying of fluid to the heart after hemorrhage, yet it is poor therapy to prescribe promiscuously for every symptom that may arise. To prescribe for every symptom may count well with the laity who, probably, are induced to think the doctor is straining his ability in the patient's behalf and, by his persistent energy, gain laurels that are sure to fade sooner or later, and praise, that to him, with his disappointed results, is as sounding brass and a tinkling cymbal. It is to be remembered that the symptoms are not the disease and that when the cause is removed the symptoms disappear. The removal of the cause being a complex task, requires the greatest skill, for each organ is in close sympathy with every other one and due regard must be paid them all. To treat the liver independent of the rest of the body

will fail of success, because the stomach, the bowels, the kidneys and other organs are functionally disturbed by its derangement.

An ideal therapist then would combine the use of symptomatic and causal remedies, not forgetting in his zeal to cure the disease, the welfare of the patient. The limitations of drugs in the art of therapy are determined by their physiological action in individual pathological conditions. It must be remembered that the tabulated physiological effects of drugs in a large measure have been worked out on the lower animals and man in health. Especially is this true of the newer drugs. In view of this fact, it is not wise to expect results in diseased conditions by using average doses. There is but one way to know the effects of drugs and to expect results from their administration in a diseased individual, and that is by observation. The habit of prescribing the average dose as suggested by standard works of *materia medica* and therapeutics, is largely accountable for the disappointing results, which have fostered a skeptical sentiment regarding therapy. If a drug has the power to produce a certain effect and it fails when administered to do so and no untoward symptom arises, it is folly indeed to abandon it to try another; why not push it until the desired end is attained, observing closely for ill manifestations,

Remembering that "full many a shaft with purpose sent,
Finds mark the archer little meant."

An illustration of this point is to be had from the giving of *veratrum viride* in a case of puerperal convulsions. Following the advice of a brother practitioner, we endeavored to reduce the pulse beat from 140 to 70 per minute, being assured that the convulsions would cease, 30 drops of the tincture for several successive doses every 30 minutes were required. Pulse were softened and reduced and kept so by an occasional addition of 20 drops; convulsions ceased and the patient recovered. We have had surprisingly good results from the tincture of aconite in the onset of pneumonia, by giving it with a free hand to relieve a lung from congestion and engorgement by decreasing arterial resistance and cardiac force, thereby preventing hemorrhage into the air cells and consequent blood-clot or consolidation. In several cases we have seen acute attacks of appendicitis relieved absolutely by the administration of 4 oz. of sweet oil every four hours, the idea being to lubricate the intestinal tract from os to anus, and thereby relieve the strangulation.

"Diseases desperate grown
By desperate appliances are relieved
Or not at all."

While cases *in extremis* require radical measures, conservatism is the best policy for often simple remedies, in a simple way, for simple ailments, are better than a bombardment with more powerful drugs; but such simple simplicity as letting nature take her course when her course is bad, as it is in every diseased condition, will often assign a curable patient to an apartment beneath the sod.

Let it not be forgotten that mankind is both spiritual and material. That many are much more spiritual than material, therefore to complete the art of therapy the mental man must not be overlooked while treating the physical man. The balm of suggestion, the oil of confidence and the soothing of hopeful expectation are indispensable aids and cannot be ignored.

We need not less of science but more of art. To know how to cure is the doctor's most valuable asset. Many funerals bring idleness into his office and tie crepe upon the door of his reputation; besides, "It is an awful thing, to see a human soul take flight," and leave but a pile of mother clay, to the physician, his respects to pay.

Personal Experience in Treating Appendicitis.*

By Joseph Graham, M. D., Durham, N. C.

In presenting a paper on this subject, the writer has no apologies to offer, for the disease is so frequent as to necessitate a very large proportion of all abdominal operations. He must apologize, however, for the personal character of this paper. It is not a review of the literature of the subject, but a statement of observations and conclusions based upon his own work.

The 61 reported cases include all the operations done by me for appendicitis in the hospitals, and private homes and farm houses of Durham and surrounding counties.

These cases have been roughly grouped according to the character and extent of the peritoneal reaction. Some of the dividing lines are necessarily arbitrary and somewhat vague, and some of the groups might perhaps as fairly be combined with each other as separated.

Group I is of the cases of diffuse peritonitis. In all, there was abundant turbid serum, or even thin pus, widely diffused through the peritoneal cavity.

Group II includes the cases in which similar exudates were found beyond the immediate neighborhood of the appendix and pelvis.

Group III comprises those cases in which

*Read before the Tri-State Medical Society at Charlotte, February, 1908.

the pus was confined to the appendiceal region.

Group IV there was a complete walling off and closure of the abscess.

Group V is composed of those cases known as "acute suppurative" or "acute gangrenous," and in these cases the peritoneal reaction was limited to the appendiceal region.

Group VI includes the so-called acute catarrhal cases, in which there was acute inflammation of the appendix, but no demonstrable pus.

Group VII includes the chronic cases and interval operations.

The cases are as follows:

GROUP	CURED	DIED	TOTAL
I. Diffuse Peritonitis	4	1	5
II. Extensive Peritonitis	7	0	7
III. Local Peritonitis	12	0	12
IV. Closed Abscess	19	0	19
V. Acute Suppurative	9	0	9
VI. Subacute Appendicitis	6	0	6
VII. Interval and Chronic	3	0	3
	60	1	61

Of the 61 cases, in 43 the appendix had perforated. In 18 there was no perforation. The duration of the disease at the time of operation could not always be easily estimated. A few cases were operated on in the first 72 hours; some abscess cases were operated on in the fourth, fifth and sixth weeks; two were operated on after the abscess had ruptured into the intestine and been evacuated.

In three cases, no attempt was made to remove the appendix, but rested after instituting drainage. None of these cases have had recurrence.

Wound infection occurred in four cases closed without drainage, and in all of the drainage cases there was infection of the wound. In a few cases the operative wound was closed and a separate stab incision made for drainage.

All requiring continued drainage developed some degree of hernia. Two of the abscess cases developed fecal fistula. In both the base of the appendix was necrotic and the bowel wall unhealthy. One was treated by ligature with catgut; the other by ligature and purse string suture with Pagenstecher. The necrotic tissue allowed the ligature to slough out. One fistula closed voluntarily; the other required operative treatment. This case later developed acute intestinal obstruction and died after operation.

One case of diffuse peritonitis was followed by acute intestinal obstruction. Enterostomy and separation of adhesions was performed in a country farm house, 54 hours after complete obstruction. The patient

recovered with fecal fistula.

In regard to the diagnosis of appendicitis, I have little to say. When the clinical history and symptoms are typical, there is no difficulty. When the classical signs are absent it is impossible to decide. Rectal examination is always valuable.

When there is a question of doubt as to the diagnosis, a surgeon should be called, for appendicitis is truly a surgical disease. The surgeon alone sees the living disease in all the stages of its progress. He sees it in its incipency in one case, when it has progressed somewhat further in another; and again in a third case he sees it when it has nearly reached a fatal termination. It is the living disease revealed at operation that teaches us to make diagnosis. Correct ideas of living pathology cannot be gotten from text books, dissecting room or post-mortem examination. The surgeon has the opportunity to compare the operative findings with the pre-operative symptoms, consequently it is his privilege to appreciate what grave pathological processes may exist with few marked symptoms.

Undoubtedly in many cases the diagnosis is made more difficult by the previous administration of morphia.

Morphine is the ready refuge of the physician in abdominal pain. It is not the one dose that does harm, but the baneful repetition, which is not justified unless the diagnosis is clear and the physician is fully aware of the condition he is deliberately treating.

Treatment.—There has been much discussion as to when to operate. I advise operation in every case as soon as the diagnosis is certain and the bowels opened by enema.

In operating the dominant idea should always be to do the least possible damage. The operation should be done as rapidly as possible and the intestines handled as little as possible.

After one has done a few operations in country farm houses, he learns to make every move count; he tries to get in and get out, for he realizes the real value of the natural immunity of the patient and tries to leave the patient in a condition to take care of the pus himself. The patient is our best ally; he can take care of an enormous amount of infectious material if allowed to do so. We should stop the long debauch with intoxicating anesthetics, and must not waste the patient's vitality.

A different method has to be applied to different cases. We will not take up your time in speaking of the chronic and simple acute cases.

In abscess cases, the chief indication is sufficient drainage. If the abscess is ad-

herent to the perietal peritoneum incision, evacuation and drainage is usually sufficient, without removing the appendix; yet I always remove the appendix in these closed abscess cases if I can do so without breaking up the protecting wall. If the abscess is not adherent to the perietal peritoneum, we have an entirely different condition to deal with. The abscess is either between the folds of omentum, or between the walls of the intestines, in a position where it can only be reached after opening the general peritoneal cavity. In these cases the secret of success lies in the protection of the peritoneal cavity from contamination. Having located the inflammatory mass it should be isolated by gauze pads. To do this successfully, one must know the anatomical situation of peri-appendicular suppurative. Adhesions should then be separated until the pus escapes. The pus should then be gently sponged out, the appendix sought and removed. The stump should be ligated with linen thread and disinfected. In abscess cases I never bury the stump. The infected area should be drained by rubber covered gauze strips and if there is much pus I also pass a rubber tube to bottom of pelvis. The patient is put in Fowler position and receives the continuous low pressure N. S. enema.

In the cases of diffuse wide spread peritonitis the appendix was removed and the appendix area drained by rubber protected gauze strips put in like lamp wicks, not packed. A rubber tube was carried to the bottom of the pelvis, through a separate incision. In these cases no attempt was made to remove all the pus, but depended on drainage, Fowler position and continuous saline injections, and above all on the vitality of the patient. I have never used multiple incisions and irrigation.

In all septic cases I allow all the water the patient will drink and wash out the stomach if vomiting is persistent. Lavage is repeated as often as vomiting tends to return.

In country practice it is very difficult to maintain the Fowler position. I have tried both plans, angulation of the body of the patient and angulation of the bed. It is impossible to maintain the patients in bed with the shoulder rest; they slip down so that the body bends and the abdomen is on a parallel line with the bed. The semi-sitting position is uncomfortable and produces considerable fatigue. Therefore, I have adopted the plan of elevating the head of the bed and turning the patient on the right side. This position is easily maintained, the patient is comfortable and can be easily handled and nursed. The side

position gives the best drainage, which is so imperative.

Since writing this paper I have operated on nineteen (19) additional cases. In sixteen the appendix had perforated.

GROUP	CURED	DIED	TOTAL
1. Diffuse Peritonitis	2	1	3
2. Extensive Peritonitis	2	0	2
3. Local Peritonitis	4	0	4
4. Closed Abscess	4	1	5
5. Acute Suppurative	2	0	2
6. Subacute Appendicitis	0	0	0
7. Interval and Chronic	3	0	3
	17	2	19

Of the total eighty cases reported, in fifty-nine the appendix had perforated.

I think I may be allowed to call attention to the character of my three fatal cases.

Case 59.—Male; aged 21; ill three days; gangrenous appendix; diffuse peritonitis. Physicians in attendance had been unable to secure bowel movement by purgatives and enemas.

Operation.—Watts Hospital.

Appendectomy.—Tube drainage of appendix area and suprapubic tube to bottom of pelvis. Operation was prolonged in search for appendix, the sigmoid being displaced to right of median line and causing confusion.

Result.—Patient died about 24 hours later. Post-operative ileus.

Remarks.—Enterostomy was indicated and should have been done at time of operation. Operation was unduly prolonged.

Case 68.—Negro man; aged 32; ill ten days; closed abscess, adherent to parietal peritoneum. Operation was performed under trees in patient's yard.

Operation.—Incision evacuation of pus and removal of appendix. General peritoneal cavity not contaminated.

Result.—Patient did well. Abdominal drainage removed and wound granulating nicely. I did not see patient from day of operating until 17 days later, when I was hastily summoned by the attending physician on account of secondary hemorrhage. We controlled hemorrhage, which came from the epigastric artery. Patient was exsanguinated and never rallied.

Remarks.—The hemorrhage in this case began while patient was asleep and was due to teasing the artery by jumping from bed while in a dream. This is the third case of serious hemorrhage I have known from this artery.

Case 71.—Girl; aged 18; ill ten days; thoroughly septic; capillary cyanosis; operation performed in patient's room. Incision, evacuation of abscess located between folds of intestine, and omentum not adherent to parietal peritoneum. Appendix removed.

Drain to bottom of pelvis through supra-pubic incision.

Result.—Death about 24 hours later, from sepsis and spreading peritonitis.

Excision of the Coccyx (Coccygectomy).†

By Dr. John R. Irwin, Charlotte, N. C.

Coccygodynia is the indication for this operation.

This affection is characterized by severe pain in the coccygeal plexus and the vicinity of the coccyx. This pain, which occurs almost exclusively in women, is increased by the slightest movement of the bone, particularly from contraction of the gluteus maximus, the coccygeus, the ischio-coccygeus, the levator ani and the sphincter ani muscles. It is often obstinate, and is due to various causes, such as fracture and dislocation of the coccygeal vertebrae, from a fall, kick, forceps delivery, etc., or inflammatory processes in the bone, its joints or vicinity. The pain is usually due to inflammation as well as pressure upon the fifth sacral and coccygeal nerves. In many cases no special cause can be found, and we have to deal merely with neuralgia.

Three-fourths of the cases are due to injuries in labor. There is frequently temporary pain (coccygodynia) in the coccygeal joint following labor, due to strain of the anterior ligaments of the bone, but disappearing some weeks after.

Men are almost immune because they do not bear children, and because the bone is better protected in them than in women from external violence by the higher situation and the closer approximation of the tuberosities of the ischia, and because there are not the same development and mobility of the muscles of the pelvic floor and gluteal region.

The second coccygeal joint is more often affected than the first. The patient complains usually of pain "in the very end of the bone." With every step, every effort to sit down or rise, with every movement of the sphincter ani, the bone is pulled upon and moved.

Coccygodynia must be distinguished from vaginismus, hemorrhoids, and anal fissure, by physical examination.

Dr. J. C. Nott, of Mobile, Ala., described an operation in the *New Orleans Medical and Surgical Journal*, May, 1844, by which the last two coccygeal bones were removed for what he called "Neuralgia of the Coccyx." Fifteen years later, in 1859, Sir James V. Simpson described a disease of the coccyx, which he said could nowhere

be found mentioned in books, and for which he proposed the name "Coccygodynia." He advocated as treatment, subcutaneous section of all the tendinous and muscular attachments of the coccyx. Good results have been obtained by subcutaneous division of the muscles and ligaments that are attached to the coccyx, particularly the gluteus maximus and sphincter ani. Knowing that the surest method of bringing about a permanent cure consists in excision of the bone, this method was adopted in the following case:

Miss B—, age 19, February 12th, 1906, fell astride the edge of a step, the coccyx receiving the force of the fall. Since that time she has been practically an invalid, unable to sit up or walk without pain in and about the bone, and consequently has spent the greater part of the time since the receipt of the injury (over two years) in bed. Thus her college course was interrupted, and she was incapacitated for work. Her family history is good and she had never been sick or confined to bed.

Learning that general and local treatment had been faithfully tried without benefit, and finding by physical examination an extremely tender and painful condition of the parts, which had existed all these months, I decided that excision of the coccyx was indicated and imperative.

After thorough general and local preparation, the patient was anesthetized and placed in an exaggerated left latero-prone position. An incision was made from the tip of the coccyx upward, and the entire length of the bone exposed. The tip was freed by bone-holding forceps and pulled outward, and the lateral structures which were thus put upon the stretch were divided up to the sacro-coccygeal articulation, which was then divided with the scalpel. It is always best to disarticulate the joint and not to cut away the coccyx with bone forceps, as the end of the sacrum may be injured and necrosis result. The only artery of importance that required a ligature was the median sacral. The wound was closed with silk-worm gut sutures, the introduction of which was greatly facilitated by having an assistant place his index-finger into the rectum and push up the bottom of the wound, which is always very deep and difficult to close unless it is made shallow in this way. A compress of gauze was placed over the incision and held securely in place by a T-bandage. The first four days the bladder was emptied every eight hours with a catheter in order to keep the wound clean and prevent infection. For the same reason the bowels were not allowed to move until the fourth day. The wound was washed daily with a solution of corrosive sublimate

†Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June, 1908.

1-1000 and a clean compress and T-band-
age applied. Only one hypodermic of mor-
phia ($\frac{1}{8}$ gr.) was given a few hours after
the operation for restlessness and pain.

In ten days the patient was walking
around in the hospital, and three weeks
later left for home, a well and an exceed-
ingly grateful patient. The result of the
operation is most gratifying in the symp-
tomatic relief afforded. Have heard from
her twice since leaving and she says that
she hasn't felt the pain at all since the
operation.

This operation is tedious and more diffi-
cult than might be supposed. The dangers
attending it are infection, wounding the
posterior plexus of veins or rectum. There
are three methods of treating the wound:
closure, as in the case reported; drainage
with strands of silk-worm gut; and the open
method. In my opinion, the drainage
method is preferable. The open method is
not a good one, as the healing process is
exceedingly slow and troublesome, owing
to the great depth of the wound and the
frequent occurrence of infection taking
place from the rectum.

My reason for presenting this subject and
case to the Society is: It is rather rare, and
seldom if ever discussed; to call your atten-
tion to the three methods of operating; to
the complete relief following the operation;
and to call your attention to the fact that
the disease was first discussed and the
operation for its relief was first suggested
by Dr. Nott, a Southern physician and sur-
geon; and to help encourage the presenta-
tion of short and practical papers to the
Society.

Streptococcus Infections of the Tonsils* Their Diagnosis and Relationship to Acute Articular Rheumatism.†

By Wm. de B. MacNider, M. D., Chapel Hill, N. C.

Perhaps it may seem a rather late day to
resurrect such an old and well studied sub-
ject as throat infections and their diagnosis.
The subject has recently aroused much in-
terest in me from having to deal with two
small epidemics of such cases which proved
to be of a non-diphtheritic nature and
from the complications referable to the
joints which several of these cases devel-
oped.

Within the past two years I have had the
opportunity of studying fifty-eight infec-
tions of the tonsils and adjacent soft parts.
With but few exceptions these infections
have been in males between the ages of 16
and 30. Six were in children between 3

and 8 years of age and four cases occurred
in women.

The acute inflammations of the tonsils are
usually due to infections by the *Staphylo-
coccus* or the *Bacillus Diphtheriæ*. Some
organisms of the streptothrix group which
are usually present in the mouth and which
are non-pathogenic, may perhaps under fa-
vorable circumstances become pathogenic
and should be classed among the organisms
capable of causing acute infections of the
throat.

These organisms may be present in pure
culture, but frequently a mixed infection
exists. In such cases a *staphylococcus* is
often the contaminating organism. It is a
large coccus, grows luxuriantly on the or-
dinary culture media and is feebly patho-
genic for rabbits when they are inoculated
subcutaneously.

In the ordinary cases of acute follicular
tonsilitis the *staphylococcus* is the com-
monest organism found. It can be easily
obtained from the white fibrinous plugs in
and around the openings of the tonsillar fol-
licles.

Of the fifty-eight cases of throat infec-
tion presented in this paper, thirty were
subjected to a bacteriological examination
and as the other cases which were not so
examined developed within a few weeks
and in the same locality as those examined,
it is not illogical to conclude that they had
as their cause the same organism.

Technique.—The bacteriological exami-
nation consisted in first making from the
exudate covering the tonsils or fauces, two
film preparations. One was stained with
Löffler's alkaline methylene blue and one
by Neisser's method. The last method of
staining has the advantage of clearly de-
fining the polar bodies, which are to some
extent characteristic of the *bacillus diph-
theriæ*.

Secondly with the aid of a cotton swab
three blood-serum tubes were inoculated
from the exudate. These were incubated
from twelve to twenty hours and from the
colonies which formed film preparations
were made and stained by the above
methods.

The result of these examinations showed
constantly present both in the films made
from the throat and from the colonies, an
organism having the characteristic chain
grouping of a streptococcus. Associated
with this organism was a diphlococcus of
rather large diameters which did not grow
well on the ordinary media.

In no instance were there organ-
isms found which at all resembled the *ba-
cillus* of diphtheria. In the films made
from the throat, bacilli were often present
which differed from the diphtheria bacilli

*Read before the Tri-State Medical Society, Char-
lotte, N. C.

in that their protoplasm stained uniformly, there was no "barred" appearance, no polar bodies, the organisms were not curd or clubbed but were straight bacilli with rounded ends.

Symptoms.—The symptoms manifested in these cases were those of an acute infection. The onset was sudden with a chill or chilly sensation followed by headache, rather severe backache, a rapid rise of temperature to 103-104 deg. F., a large heightened pulse, which compared with the degree of fever was slow, usually about 90-100 per minute.

The tonsils in the majority of cases were only slightly enlarged. The lymphatic glands of the neck were enlarged but this change was not pronounced. The inflammatory reaction of the tonsils consisted in the formation of a grayish white membrane which covered their surface, usually involved both tonsils, and in four cases extended up the anterior pillars of the fauces. The membrane was tough, was removed with difficulty, and after its removal in many instances left behind a raw bleeding surface. In only ten of the fifty-eight cases, was the membranous deposit limited around the follicular openings.

So far as the appearance of the throat was concerned, these cases would have been diagnosed as diphtheritic infections. Such a diagnosis was made in the first four on a purely clinical basis. Their failure to respond to antitoxin treatment led to a bacteriological examination with the demonstration of a streptococcus infection.

A series of such cases, twenty-four in number, has been reported by Prudden of New York in which the streptococcus was the organism present and not the bacillus of diphtheria.

The existence of such cases renders the diagnosis of diphtheria when approached entirely from the clinical side extremely difficult, if not impossible. All cases should be subjected to a bacteriological examination before a diagnosis is made.

The second point of interest which developed from the study of this series of cases was the occurrence of symptoms referable to the joints. Many of the patients complained of pain in one or more joints and in a few of these cases the joints were slightly swollen. Such symptoms lasted but a short time and did not return.

In four of the series the joint symptoms were prominent and persisted. For the sake of brevity a detailed history of the cases will not be given.

Case 1.—A. R. D., male, age 17. The general symptoms were those of an acute infection. The throat examination revealed a grayish membrane covering the right ton-

sil and sneaking up the right anterior faucal pillar. The lower half of the left tonsil was covered by a similar membrane.

The bacteriological examination demonstrated as a streptococcus infection.

Four days after the patient was first seen the right shoulder joint became swollen, red, tender and painful. The following day the left knee became involved. The joints remained swollen for about one week and gradually returned to the normal. During the time the joints were affected the temperature ranged around 103 degrees F., occasionally falling to 101 degrees F., following profuse sweats. At no time was there a leucocytosis.

Case 2.—L. A., male, age 21. This case was very similar to case No. 1, with the exception that the changes in the tonsil were those of a follicular tonsillitis. The exudate was more or less confined to the surface immediately around the follicles. From the exudate streptococci were isolated. A few days after the tonsillitis the right shoulder and knee joint become involved.

Case 3.—R. L. W., male, age 19. When the patient was first seen he was just recovering from a severe sore throat. His chief complaint was soreness in the left shoulder joint, which he attributed to an injury. Temperature 100 degrees F., pulse 75. The following day the joint was decidedly enlarged and very painful. Five days from this the right ankle joint became swollen and painful, then the left ankle and right shoulder. Within two weeks all the joints had returned to their normal size, except the first joint affected. This joint remained slightly swollen and the movements greatly restricted.

One month from the time the patient was first seen he suddenly complained of intense pain in the left shoulder joint. Within twenty-four hours the joint had increased perceptibly in size and gave evidence of a rapid accumulation of fluid. The joint was opened, liberating a few old tarry looking clots, fresh clots and some pus. Immediately following the operation the patient became profoundly shocked from which condition he failed to rally.

Case 4.—A. H. B., male, age 19. Mr. B. was seen early in the course of an acute tonsillar infection of streptococcus origin. The local condition had the same characteristics as the previous cases. A membranous deposit over both tonsils and extending to both anterior pillars. During the early stage of the infection his temperature remained constantly elevated, ranging between 101 and 104 degrees F. At the end of the first week several joints became involved, the swelling and pain

persisted for several days and gradually subsided, following the subsidence of the joint changes. The joints at this stage of the infection gave no trouble but severe pain was complained of in the muscles and tendons. This disturbance continued for sixteen weeks at the end of which time the patient entered on a tedious convalescence which terminated in complete recovery.

A fifth case recently seen, presented nothing in general different from the cases reported, except the development of a dry pericarditis followed by quite an extensive effusion.

The streptococcus is an organism which varies much in its morphological and biological characteristics as well as in the type of infection which it produces. In some instances it rapidly causes a septicæmia while in other cases it is content to remain a circumscribed infection producing an abscess, or at other times to extend to adjacent structures without entering the general circulation.

The frequency with which the tonsils act as an avenue for the entrance of an infection has long been recognized. The development of a tonsillitis before or during an attack of acute articular rheumatism, first suggested the possibility of the disease being of microbic and not of metabolic or nervous origin.

Taking into consideration the ease with which a local infection of the tonsil could become generalized, the frequency with which joint complications follow streptococcus infections of these structures, and lastly, the variety of changes this organism is capable of causing, it is not improbable that a modified streptococcus or an organism closely related to it, is the specific cause of acute rheumatism.

The specific cause of acute rheumatism is at the present time, receiving much attention. There practically remains no doubt that the disease is an acute infection and that in many of the cases the tonsils are the portals of entry. The question which is at present under much discussion is whether the disease should be considered as a condition produced by one specific organism, the *Diplococcus Rheumaticus* of Poynton and Paine. This organism has been isolated from the synovial fluid of patients with acute rheumatism, has been cultivated on special media where it grows characteristically, and lastly an acute arthritis has been produced by various investigators by giving intravenous injections of the organisms to rabbits. This diplococcus is Gram negative, the streptococcus is invariably Gram positive.

The question of the specific nature of acute rheumatism has been well summed

up by Cole of the Johns Hopkins Medical School. His views are certainly conservative. They are as follows:

"I greatly fear we are not as yet in a position to make any positive statements as to the etiology of this disease. It seems to me that there are at least three possibilities. First, that acute articular rheumatism is a definite, acute, specific infectious disease, the cause of which we do not know, and that the cocci which have been isolated were secondary invaders. Second, that there is no such specific disease as acute articular rheumatism, but that the cases grouped under this term are those of a mild and moderately severe case of general streptococcus infection, in which the joints and heart are generally involved. Third, that acute articular rheumatism is due to a specific form of streptococcus, which at present we have no accurate method of distinguishing from *Streptococcus Pyogenes*, but which, owing to the specific character of the lesions induced in man, must possess special characteristics."

Lastly, in regard to the treatment of these cases a point of interest develops. It is well known that the salicylates have a more or less specific influence in cases of acute rheumatism. In all of these cases of streptococcus infections of the tonsils the salicylates were of great service in relieving the subjective symptoms. This relief might be produced through the general action of the salicylates, on the nervous and circulatory systems, or, on the other hand, it might be explained through a germicidal action of the salicylates on the specific cause of the disease.

Chronic Alcoholism.

By W. C. Ashworth, M. D., Resident Physician
Telfair Sanitarium, Greensboro, N. C.

The term chronic alcoholism refers to the disease caused by the habitual use of alcohol for a prolonged period of time. The time required for the development of the disease varies with different individuals. Those of a neuropathic tendency or type naturally manifesting the cardinal symptoms of the disease much sooner than those of a more phlegmatic temperament.

The effects on the system of the continuous ingestion of alcohol for a prolonged period of time are varied and complex. The nervous system seems to bear the brunt of the poison, and it is here that we first expect to note an evidence of a breaking down of the resisting powers of the body. The addict finds himself unsteady and tremulous as soon as his accustomed amount of whiskey is curtailed, therefore the impulse to take more of the stimulant is well nigh irre-

sistible. The so-called "craving" is nothing more than the cry or demand of the nervous system for more whiskey. It is at times pathetic to note the agony endured by these patients when from any cause their supply of whiskey is about to be exhausted or their usual amount withdrawn. It does seem at this stage of alcoholism as if the whiskey was a veritable *sine qua non* to these poor unfortunates. Resolutions, pledges, and will-power play a very insignificant role in the management and control of the patient at this stage. The taking of whiskey is no longer a habit to satisfy the palate or for the purpose of cultivating social amenities, but on the other hand is almost an absolute necessity for the preservation of the life and mentality of the user. The stimulant is now taken without reckoning the cost to reputation, social standing, domestic felicity, in fact every thing that makes life worth living is sacrificed in an effort to satisfy an outraged nervous system. It is at this period that friends and relatives must fully realize the gravity of the situation or else the poor victim is irretrievably lost. A cursory glance at the unfortunate at this time reveals the fact that he is suffering from a serious disease as much as typhoid fever or any other similar disease, and that he must be treated by rational and well proven methods just as much as typhoid fever or pneumonia. It would be as futile to tell the consumptives not to cough as to tell the alcoholic at this stage not to take a drink. Before leaving the effect of alcohol upon the nervous system we do not wish to forget the stage of delirium tremens which is only an episode in the history of chronic alcoholism. Delirium tremens is prefaced for several days by excessive nervousness, sleeplessness, and insomnia is the third cardinal symptom of the disease. Delirium tremens is in reality only an expression of exhaustion of the nerve centers. The delirium is peculiar, and is always distinguished by an expression of fear.

Passing from the effects of alcohol upon the nervous system we next want to note its effects upon the kidneys and liver.

It is hardly necessary for me to speak of the injurious effects of alcohol upon the kidneys. We all know too well that the chronic drinker develops those serious changes in the kidneys which leads to Bright's Diseases and cirrhotic changes generally. The liver is congested and tender, and is often the cause of much distress in the right hypochondriac region. The presence of chronic gastric catarrh is always noted, and is manifested by the vomiting of tenacious mucus, particularly during the morning hour, when the stomach refuses

to take any nourishment except that it is preceded by the irritant alcohol. The alcohol in any form or amount is disastrous in its effects on the digestive organs is now conceded by all medical authorities. The time has been when it was believed that it stimulated the flow of gastric juice, and in this way benefited digestion, but it is now known, that while it does in small amounts stimulate the flow of the secretions that it neutralizes their effects on the digestive action, and finally arrests and retards the secretions generally.

The treatment is about as complex as the symptomatology. I find that the institutional care, and systematizing of the habits of the chronic alcoholic is of paramount importance, and must not be lost sight of regardless of the plan of treatment pursued. I have tried the treatment in and out of an institution, and have found on account of the fact that the treatment of the individual is of so much importance that institutional treatment has decided advantages over any treatment that is practical in the home of the patient. My plan of treatment consists of a strong tonic course of medicine, and the use of such remedies as the individual requirements of the case seem to indicate. There is no specific plan of treatment any more than there is for pneumonia or typhoid fever. Each case must be treated solely upon its merits, and the more the treatment is individualized, and a routine plan avoided the more successful we will be in securing the results so much desired. I wish to lay special stress upon thorough purgation at the beginning of treatment for it is here as most toxic troubles that elimination plays such a significant role in the management and control of the more obstinate symptoms. Strychnine, and atropia may be used as the symptoms may seem to indicate, but again I wish to emphasize the importance avoiding the continuous or routine use of any particular drug or drugs. Our bitter tonics consisting of *nux vomica*, *cinchona*, *gentian* all have a part in restoring the glandular activity of the stomach, and may be used for their tonic and stimulative effect. When we consider the fact that every case is a law unto itself we will readily realize the futility of depending upon any routine plan of treatment as is the practice in a number of so-called institutions in this country. It is here that we may remember and follow the old dictum, 'take care of the patient, and the disease will take care of itself.'

In regard to the treatment of the unfortunate episode, delirium tremens now and then encountered in chronic alcoholism, will say the best results are accomplished by the use of as few drugs as possible. The

attempt to force sleep by powerful anodynes is not good practice. Of course frenzied cases must be quieted, but they should only be subjected to only that degree of restraint necessary to prevent injury. We cannot be too cautious in the use of opiates in the treatment of delirium tremens. It is much better to bear with the malady awhile rather than injure or destroy the process of digestion. An opiate to a large extent defeats the very object that we are trying to overcome. The bromides must be used judiciously for the same reason. Strychnine, aromatic syrup of rhubarb, tincture nuxvomica, and such other remedies as do not tend to impair digestion may be used with discretion. Chloral must be used very circumspectly, and in such doses as will not depress the heart's action. I will only mention digitalis so much used formerly in delirium tremens to condemn its use this malady. The digestive action must be conserved, therefore, the heroic dosing with digitalis is bad practice. I wish to say in conclusion that one good frank case of delirium tremens is often of inestimable benefit to the alcoholic, and that it often exercises a deterrent effect upon the patient that lasts throughout a life time.

Some Practical Points in the Treatment of Inguinal Hernia.*

By R. L. Payne, M. D., Norfolk, Va.

The most common of all accidents which befall humanity is some form of hernia.

About one in every 20 or 30 people born are at some period of life so affected. Sex seems to exercise a controlling influence and we find in men about 1 in 14.9 have some of hernia, while in women the proportion is thought to be 1 in 44.7 persons. Of the whole number afflicted with hernia about 81 in every hundred from inguinal hernia and at least one-seventh of all cases of inguinal hernia, seen for the first time, are in children under one year of age. Indeed the majority of cases of hernia occur before middle age, and the largest number during the first ten years of life (Kingdon).

This is almost entirely due to the processus vaginalis. Francke tells us that in his operations for oblique inguinal hernia he found a congenital sac in 28.6% of his cases; Beresowsky found congenital sac in 35%; and Wood, operating on 370 cases of inguinal hernia, found congenital sac in 33.3%. Later writers make the percentage larger still. Add to this the nearness together of the abdominal rings in infancy and the frequent increase of abdominal pres-

sure due to crying; straining at stool; straining in micturition due to phimosis and it is easy to see why inguinal hernia is relatively frequent in the very young. Nature makes every effort to overcome these conditions. The tendency is always to obliteration of the vaginal process, and the gradual widening of the pelvis during the continuance of development brings the abdominal rings wider apart so that the weak points are not so closely apposed. In this way many times the inguinal hernia of infants is cured and with these natural adjuvants to the treatment a little aid on the part of the physician will cure most of the hernias of early childhood. In my experience, however, very few physicians pay any great attention to these cases. Advice to keep the bowels open and reference to a druggist for a truss is usually all that is done, and such advice is woefully insufficient. Great attention must be paid to the nutrition of the child, for the development of the muscles and even the distribution of fat contributes toward the cure. Constipation must be relieved and if phimosis be present it must be removed. Next the mother must be instructed how she can keep the hernia from coming down, and for this purpose nothing could be more unsatisfactory than the trusses found in the shops. Trusses can rarely be made to fit a baby with comfort; they can seldom be kept in place and the hernia frequently coming down, the effect of the treatment is lost; they are dirty and expensive, for if we resort to trusses several must be provided in order that one may always be ready for use, and by no means the least objection is that they frequently excoriate the tender parts and must be abandoned.

What I have used for years to hold the hernia up is the simple hank of yarn, and though I am aware there is nothing new about it, I am sure its usefulness is not as generally recognized as it should be, and this is my apology for calling it to your attention. The method of application is simple. With the infant lying on its back and the hernia reduced and held in place by the finger one end of the skein is laid over the open ring. The free end is now carried to the opposite side and under the back to the point of beginning, where it is passed through the loop in the end of the skein already in place over the ring and then carried down through the perineum and tied to the skein in the back or, what I most often do, instead of passing through the perineum the skein is split and tied around the thigh of the same side. This leaves a loose, soft knot over the ring and without much pressure it may be drawn tight enough to effectually prevent the descent of the hernia. It is necessary to pro-

*Read before the North Carolina State Medical Society, Winston-Salem, N. C., June, 1908.

vide several skeins so that change can be made whenever the child is wet or soiled. The child must be bathed with the yarn in place and when changes are necessary the child must be recumbent, and must not be crying, while the thumb of the nurse is kept over the ring so that the hernia is never allowed to come down. The child must be kept dry and the skin where pressure is made well powdered. The treatment must be maintained for from six to twelve months and though at first glance it looks very troublesome it is wonderful how quickly the careful mother will go about it in a routine way, and after all it is much less troublesome and expensive than any form of truss, while in my hands, by its use, cure has been the rule.

If this method fail, then it is well to try what may be done with either a spring or elastic truss until the child is cured or is old enough for the radical operation, for in my opinion there is never a time while hernia persists that the treatment may be safely abandoned.

As to the age at which the radical operation may be done, opinions differ. I have operated, with success, as early as the fifth month (operated because of strangulation), but it is usually best to wait until the child is four or five years old, both because of the possibility of cure without operation and what is even more important, in very young children the operation is more dangerous, and the abdominal muscles are too poorly developed to make us feel sure of the success of the operation.

That brings up the general question of operation in cases of hernia, and here, as in the treatment of hernia in infants, I do not believe our profession is fully measuring up to its duty in instructing the people as to the possibility of cure by radical operation. Most people suffering from hernia are facing a serious proposition. Not only do they suffer more or less constant discomfort, but they are excluded from many appointments in the public service; they are unfitted for heavy manual labor, and at all times the menace of strangulated bowel stares them in the face. If they be overtaken by this complication then the predicament is indeed serious. One of the very best surgeons in this Society told me he had never had a case of strangulated hernia, on which he was called to operate, recover. The death rate is 6% when strangulated hernia can be reduced by taxis, and in cases where operation must be done the most reliable statistics show a death rate of 19%. On the other hand the operations for radical cure have been so perfected that the last report of the operations of Coley and Bull shows a death rate of only 0.5 of 1 per cent.,

while the percentage of relapses following the operation in 1978 cases is as low as $\frac{1}{4}$ of 1%. In the face of these facts, then, when a patient suffering from hernia seeks advice, I feel sure it is wrong to simply fit him with a truss and let him go, unless there be some very good reason why operation shall not be advised.

Just a word in passing as to the operation of choice in attempting the radical cure. In my own practice I have abandoned all methods except the operations of Bassini and Halstead. In the vast majority of cases the Bassini is the operation of choice, both because of its simplicity and less frequent unpleasant sequelæ. Following the Halstead operation orchitis is common; atrophy of the testicle is not infrequent, and, in one case in which I was consulted, a permanent and marked hypertrophy of the testicle resulted, probably due to the too complete excision of the veins of the cord and consequent interference with the return current of blood. These untoward results may be guarded against, and in direct inguinal hernia, as well as in cases where the hernial opening is unusually large and the abdominal muscles poorly developed, I believe the Halstead operation as modified by Bloodgood offers the best safeguard against recurrence.

If we have not cured these cases by some form of truss in childhood or by the radical operation later, every moment they live they are in danger of strangulation and we can offer no absolute safeguard. It is a mistake to believe that the gut only becomes strangulated under violent exertion of some kind (cite Walser case) for while this is a predisposing cause I am satisfied that under conditions entirely beyond our control strangulation may, and does occur, and this is especially true if there be present an irreducible hernia. Even with a well-fitting and, so far as can be made, effective truss, the gut may at any time slip under the pad and become strangulated. When strangulation does occur we are face to face with one of the gravest emergencies in surgery. 95% of such cases, untreated, die. The symptoms are usually not to be mistaken. A hernia previously moveable suddenly becomes the seat of pain and is irreducible. It grows larger and no longer yields on impulse or coughing. The face of the patient looks anxious and pinched. In many cases there is a state of shock with colic pain, nausea and vomiting, which sooner or later becomes stercoraceous. There is constipation and the abdomen becomes tympanitic. If no hernia has previously existed the symptoms detailed are immediately preceded by the sudden development of a swelling in one of the usual situations of hernia and

the existence of such symptoms should always suggest the search for hernia. Of course I am detailing typical symptoms, which when present admit of no question as to treatment, but in another class of cases the question is more difficult, *for in these the symptoms are latent*. Twice in the past year I have had referred to me cases of hernia that had suddenly become irreducible. Apart from slight colic pain and constipation and the fact that the hernia could not be reduced there were no symptoms—no excitement of pulse, no temperature, very little tenderness, no nausea, indeed nothing to indicate strangulation and yet, in each case, operation revealed strangulation with extensive gangrene of the gut requiring resection.

If we suspect strangulation something active must be done. The terrible mortality attending these cases is due to delay in treatment, and when it becomes the rule to operate on all cases within the first six, or even twelve hours, the story will be different. Though it may be every doctor may not be willing to do an enterectomy and intestinal anastomosis every doctor should feel it his duty to cut down upon a hernia and relieve the stricture, or he should see to it that some one prepared to act is called at once.

True, it very often happens that the patient, used to more or less trouble with his hernia, is slow to call in aid, but this only makes it the more imperative that the doctor shall no longer delay.

Two methods of treatment may be resorted to:

First, taxis or reduction by manipulation, and second, operation.

Taxis may be used for a short time, 20 or 30 minutes if the hernia is of recent origin or if it has been previously reducible and if the symptoms of strangulation are not of longer duration than six hours. Failing to reduce the hernia, after this reasonable effort, an anæsthetic should be administered, taxis again tried for a few moments and if failure results operation should be done at once.

It is perhaps most important to determine the limitations of taxis:

1. Taxis is absolutely contraindicated in irreducible hernia becoming strangulated.

2. Taxis is absolutely contraindicated in small hernia giving rise to severe symptoms.

3. Taxis, if violent, has been known to rupture the mesentery, leading to fatal hemorrhage.

4. Taxis may reduce a hernia en masse or may rupture a gangrenous gut, leading to the error of thinking the hernia has been reduced and to fatal peritonitis.

5. Violent taxis often results in effusion

of blood into the intestine, thus favoring transmigration of microbes and the danger of gangrene.

6. The worst thing that can be said of taxis is that it too often leads to false hope and disastrous delay.

The steps of the ordinary operation, up to the point of releasing the constriction, are so well agreed on, they need no discussion, but when this point has been reached the gravest questions will arise and the best judgment is demanded.

Of course if the gut is in perfect condition (and it will be if you operate promptly) then there is nothing to do but push it back into the abdomen and either close the wound, or, if the strength of the patient will permit, proceed to do the radical operation. This is the ideal, but it too often happens that the intestine is gangrenous or the appearance is one so doubtful that even the wisest hesitate to act. If the bowel is gangrenous then there is open to the surgeon the choice of making an artificial anus or of resecting the diseased portion and doing an anastomosis by the method of his choice. Artificial anus shows a death rate 25% higher than does enterectomy and should never be done, except in the presence of extreme weakness of the patient, for if the operator does not care to attempt an enterectomy I will later suggest a plan of treatment which permits the patient being safely carried to a hospital.

Hoffmeister declares, when one decides to make an artificial anus, in hernia, he practically declares the case lost. As to the question of resection of the bowel, if one feels certain the gut is gangrenous then primary resection must be done as soon as possible, and as to the choice of methods I prefer the end to end anastomosis by suture to either the use of some mechanical device or to the lateral anastomosis, if gut of the same size is to be dealt with. After a little practice the end to end anastomosis is not very difficult and the Mammell mesenteric stitch makes it very safe. If the gut looks healthy one should carefully examine the mesentery and if the veins are thrombosed the gut, if left, will certainly die and a resection must be done well beyond the thrombosed area or the operation will be useless. Do not hesitate to excise as much intestine as may seem necessary, for as much as eight or ten feet may be removed without interference with nutrition, and, apart from the time consumed in controlling bleeding from the mesentery, it is practically as easy to remove several feet as a few inches. The really difficult question is what to do in the comparatively large number of cases where one is uncertain of the necessity of resection. To enumerate—if the strangulation

has existed for a considerable length of time a loop of intestine that looks and feels perfectly normal may later become gangrenous, even after all constriction is removed, for in most cases the degeneration is well advanced. Dirty gray spots in the gut usually means death of the part, but apart from this, the color does not give accurate information for "even dark blue intestine may be perfectly viable." The dark blue color may not disappear under the use of gauze wrung out of hot salt solution—the classic test—and yet, the gut be viable. Feeble pulsation in the mesenteric artery indicates great danger to the gut, but the circulation may be gradually restored if thrombosis has not actually occurred.

When in doubt then, it is best to wait some hours before risking the dangers of a resection, and in this event what shall be done with the doubtful intestine. Most authorities are silent.

Graser tells us that it has been advised that the affected loop be brought out on the abdominal wall and retained there, while we wait for the recovery of the gut. He condemns this plan and advises that a rubber ligature be passed through the mesentery and the loop of the intestine be dropped back in the belly, to be withdrawn by the ligature if inspection is desired. Cheyne advised that the suspected intestine be replaced in the abdomen loosely and withdrawn for inspection later. To me the advice of neither is good, for in the one case coughing or other unexpected movement might displace the affected coil and make it hard to find, and in either case, if the gut became gangrenous, the general peritoneum would be exposed to infection. The plan I have used many times with success is as follows: If in doubt the abdominal wound is enlarged so freely that no constriction of the gut is possible, and the suspected loop or loops brought out and laid on clean gauze on the abdominal wall. Gauze is now packed in the wound so as to prevent any further extrusion of the intestines but with care to avoid compressing the suspected portion. The mesentery of the affected bowel is now punctured with a fine forcep and a strip of iodoform gauze drawn through, and this is later folded in the dressings to prevent restriction of the bowel. The bowel is now covered with sterile gauze and cotton and protected from pressure by an ordinary wire kitchen strainer. The strainer is held in place by a few turns of bandage and over all is placed an abundance of cotton wool to aid in retaining the warmth of the intestine. The whole is held in place with bandages and the patient placed in bed with light hot water bags applied over the dressing to keep the parts warm. Many

times I have used this simple method when in doubt as to whether resection must be done and, though it has not always succeeded, many times I have opened the dressing 24 hours later to find the gut fully restored and ready to be again put on duty.

Another advantage of this plan of treatment is that after a few hours the patient is in better condition to stand the resection if it must finally be done, for there is always decided amelioration of the general symptoms as soon as the strangulation is relieved, even though the gut becomes gangrenous.

Finally, I believe that if an operator is not willing to undertake an enterectomy, if he will go so far as to relieve the strangulation, it is perfectly feasible by this method to transport a patient to a hospital or to wait till help may be brought to the patient.

Hydrocele.†

By Dr. E. G. Moore, Elm City, N. C.

The selection of this trite and seemingly unimportant subject has been for a dual purpose, neither of which is to demonstrate any special knowledge which I possess or desire to impart, but rather because of a lack of knowledge I have chosen a subject so simple, and the further fact because of its simplicity it receives but little consideration from those who write, teach or preach, on things surgical. I do not hope to interest, entertain or instruct those of you who are trained in surgical thought or specialize in surgical work, for I know too well that larger ideas and greater thoughts encompass your minds and attract your attention. Perhaps had I chosen for my subject "The Absence of the Appendix" presenting you with an array of statistics corroborating the views and experiences of many writers and operators, I would have captured your attention and provoked a discussion which would have accorded me some little notoriety if not a reputation. This and kindred subjects are fads that are strikingly entertaining and peculiarly interesting; the periodicals and the doctors alike are full of them, hence little things often of great value are frequently unobserved or entirely overlooked. I take it that a large percentage of the membership of this society devote their time and talents to the administration of drugs in the practice of medicine, and give but little if any attention to surgical thought or surgical procedure, and yet the subject under consideration is one of such frequent occurrence that it falls within the observation and experience of every practitioner and its recog-

†Paper read at meeting of the North Carolina Medical Association at Winston-Salem, June 16th, 1908.

nition and treatment are so simple that every doctor, though not a surgeon, should recognize and take care of these cases at home. I have seen a regiment of prostates, but not of hydrocele, yet I have seen it in infancy, in youth, in manhood and in old age, and no doubt you have seen this also, since this disorder prevails wherever the footprint of man is found.

The more common form of hydrocele is that of the tunica vaginalis, and consists of a collection of serous fluid within this cavity. It is usually unilateral, yet may be bilateral. Its history is that of a slow and painless swelling, usually first observed in the lower or dependent portion of the scrotum and gradually extending upwards as the fluid accumulates. In shape it is oval or pyriform, having its broadest surface below. It is smooth and uniformly tense and often has a semi-elastic feel, but may become so tense and hard as to present to the sense of touch a strong resemblance to a solid body. In most cases the fluid is of an amber or straw color, and may vary in quantity from a few to many ounces. I recent cases the sac walls are thin and hence fluctuation is more easily made out, but in old or chronic cases the walls are thickened or indurated and give rise to the appearance and feeling of a solid tumor. From the inner or serous surface of the sac wall exudes a secretion which gradually fills up the tunica space and produces the cystic condition which we call hydrocele.

It may be differentiated from a diseased testicle, varicocele or hernia, the last named being more frequently confounded with a proper diagnosis perhaps than any other condition. But when we recall that in hernia the swelling begins at the inguinal ring and travels downward, that it is reducible, upon assuming the recumbent posture, with and sometimes without manipulation it disappears, that it has a soft or doughy feel and gives an impulse on coughing; and that in hydrocele we have a slow and painless growth, beginning below and extending upward, first soft, then elastic, and then tense, that position has no effect upon its relation and that its one distinguishing feature and characteristic is its translucency to transmitted light there should be no error made.

The treatment of hydrocele is palliative and radical. Simple tapping of the tumor relieves the accumulated fluid and this is often curative, yet the tendency is to reformation. After withdrawal of the fluid irritation of the membrane with the point of the needle or stylet so as to get up some inflammatory action is a better procedure still. The injection method of Levis preferably with carbolic acid, a clear descrip-

tion of which is given in the text books, is curative in a still larger number of cases, and is estimated on a percentage basis of seventy-five to eighty-five per cent. This treatment is practically painless, and properly used is void of danger. It is specially adapted to recent cases and in young subjects with thin sac walls. In the more obdurate and chronic cases of long standing with large accumulation of fluid and thickened sac walls, the injection method is frequently met with failure, and then the open method by incision or excision, or both, is not only the method of choice but the certain means of cure. It matters but little, except as a personal choice of the individual operator, what disposition be made of the sac: whether partial or complete excision, or everting it so as to envelope the testicle and stitching the edges with catgut, the idea and object to be sought is the obliteration of the sac, for this affords the only positive assurance of a complete cure. The technique of these procedures are to be found in the books of surgery, and need not be repeated here. Make your diagnosis and exclude diseased testicle, varicocele and hernia. In very young children, tapping followed by irritation with the point of the needle is usually sufficient. In older children, or in all recent cases, tapping followed by carbolic acid injection gives greater promise of better results. Such cases as are not cured by the injection method, often respond to the incision method of Nolkman, but destruction of the sac is perhaps the only certain guarantee of a cure.

Inebriety: A Variety of Comments.¹

By S. M. Crowell, M. D., Proprietor The Crowell Sanatorium, Charlotte, N. C.

Owing to the universal interest, and agitation of the temperance question, I feel that it is, at least, in keeping with the evolution of events, and the eternal justice of things, that I present to this body of scientists a paper upon certain phases of inebriety.

Not only has America begun to feel the evils of intemperance and inebriety, as a national issue, but similar conditions exist the world over, even old China has woke up from her long "pipe dream" and sent forth the edict that the opium traffic must stop, and that all her imperial officers must, henceforth, refrain from the use of the pipe.

But, in spite of our popular prohibition and stringent laws in reference to the sale of narcotic drugs, we, today, have a larger per cent. of inebriates, per capita, than at

¹Read before the Tri-State Medical Society (the Carolinas and Virginia) at Charlotte, N. C., February, 1908.

any period of the world's history.

Inebriety, perhaps, is less understood and more maligned than any other subject known to the science of medicine, and at this point I wish to condemn, in no uncertain tone, the popular idea that inebriety is only a simple, malicious *habit*, abandonable at command, as in swearing, and indulged in only by the "heathen Chinese and damu fool Americano."

Inebriety is a psycho-physiologic disease, characterized by a well known train of symptoms, varying in intensity from the slightest perversion of functions to the highest degree of physical and mental alienation, in its courses, and having for its etiologic factors the intemperate use of alcoholic drinks or the excessive consumption of intoxicating or narcotic drugs.

All nationalities, sexes and castes, alike, are amenable, of course, those of a bad hereditary diathesis being the more susceptible.

Habit is a disposition or tendency leading one to do *easily*, naturally and with a growing certainty, what he does often, thus resulting in a custom or a fixed condition.

Hence, we must classify habit, then, as one of the etiologic agents in the production of inebriety rather than the disease itself.

Will is a firm desire to do a thing, with a realization that the end is in our power. Or, according to Prof. J. S. Mills, "Will is an aggregate of tendencies to act, in a firm and definite way, upon all the principal emergencies of life."

Not being in possession of the cardinal component—the realization factor—the inebriate has no will power, being simply a chronic wisher, unable to assert his volition as a normal man might.

How absurd, then, the advice to inebriates: "Stop your 'doping,' assert your will power, arise, be healed!" Such advice reminds one of John Alexander Dowey, and "Mrs. Fiddyism" rather than sane advice from students of science.

The power of the will is very materially modified by environment, previous and present acts, or habits, of the individual, a healthy will auxiliating, an impaired one discounting the body and its functions, and vice versa.

The repetition of acts of habit form paths in the sensorium, the oftener repeated, the deeper the route, the more profound the impression, the more complex to erase, and consequently, the weaker the mind and body of the subject.

Perhaps, this implied conclusion is most ideally illustrated by Prof. James, of Harvard University, in discussing the drunken Rip Van Winkle, in the late Mr. Jefferson's

play, when the latter repeats, "I won't count this time," and further says, "Well, he may not count it, and a kind heaven may not, but deep down, his nerve cells and fibres are counting it, registering and storing it up, to be used against him in future temptations."

In the presentation of this phase of inebriety, portraying its force and importance, I can do no better than quote the lamented Isaac Erwin Avery in his "Idle Comments" where he discusses certain features of inebriety, as follows, viz: "If the latter end of morphine, and the quitting of morphine did not mean a circumscribed but sure hell, every other person that one met on the streets would have dreamy, unseeing eyes," and further he says, "that no man ever quits without the ineffable torture of white nights * * * and the grim, wearisome struggle over sickened manhood."

Again, in reference to the *thirst* for morphine and whiskey, by the inebriate, he says: "And the lesser evil, *thirst*—do you know what that is? Perhaps you have toiled along in the sunshine without water and then you have thought of a trickling spring under moss-covered rocks. Perhaps you have been so fever-stricken that you thought only of parching and easement. You call this thirst, and yet it is only a child's wish compared to that other thing—the devilish thirst that plays with a man and shakes him like a reed in the wind."

With these few facts before us, I insist that inebriety should have a more just and scientific consideration by the medical profession; that its nomenclature be elevated from the common level of maliciousness, and that it be classified as a disease, *so amenable* to treatment as to justify our respective States in making provisions for the care and treatment of their indigent and criminal inebriates, many States having no such provisions, their unfortunate (and to be pitied) inebriates meeting that fate designed for willful and malicious criminals or murderers. *This is true of North Carolina!*

Our regular and scientific Sanatoria, for the care and treatment of private, non-indigent inebriates, are many, efficient and to be commended and encouraged by our profession and the public in general. However, there is room for more, still, of this class, and much and material improvements might be made in our methods, technique, etc.

At this point, I wish, especially, to call attention to the fact that there are, operating in this country, many "quack joints," under the pseudo-title of Sanatoria, which are a great source of danger to the public, a disgrace to science, law and order, and to

render them the more insidiously nefarious, numbers of them have the unlimited and qualified endorsement—published broadcast in daily papers, posters, pamphlets and otherwise—of certain Governors, municipal officers and ministers of the gospel "galore."

The anxious inebriate, readily influenced by this erroneous endorsement of these representative men, in whom they place all confidence, in many instances, are thus made the prey of these fake, so-called institutions.

Returning to the indigent and criminal phase of inebriety, I claim it the duty of each State to provide for these the same nature of care and protection that it does for other afflictions of a different nature.

In reference to the criminal phase, I feel that I can best serve my purpose by stating that in a very brief period of time, in the State of North Carolina, two *reputed* inebriate physicians have been convicted in our criminal courts, of murdering wilfully, members of their respective families. Both received long sentences, *at hard labor* in our State penitentiary, where, now, one languishes life away; the other, and more recent, having committed suicide upon the eve of beginning to serve his sentence.

If these men were legally and medically responsible, they should have paid the death penalty; otherwise, it is a *calamity* that our State has made no special institutional provision for this, as well as none for the indigent inebriate.

May it be to our honor, as a profession, that we began an aggressive movement for the establishment of such institutions by our respective States.

Diagnostic and Prognostic Value of Glycogen in the Sputa.

—Moscato (Rif. Med.) finds that glycogen in considerable quantities is always present in tuberculous sputa. It is most marked in the later stages of the disease and in rapidly destructive types. The glycogen found in tuberculous expectoration is of the hepatic type. Other destructive diseases of the lung (that is, abscess, bronchiectasis) may show glycogen in the sputa but never so consistently or to the same extent as in the case of phthisis, and the glycogen is of a slightly different type. No glycogen was ever found in the expectoration of simple catarrhal bronchitis, nor in those cases of slow broncho-pneumonic type which suggest phthisis but do not give any of the tuberculous reactions. Lobar pneumonia is sometimes associated with glycogen in the sputa, but its presence is uncertain and inconstant. The amount of glycogen excreted in tuberculous sputa is too large to be derived from the pus and

seems to suggest a hyper-production within the pulmonary tissue.

The Treatment of Crushed Hands.

—Fairlie-Clarke (The London Practitioner) believes injuries to the hands to be amongst the most important with which the surgeon has to deal. The general principles of treatment are: cut little, stitch little, drain freely, wash freely. The knife is rarely needed in the treatment of crushed hands. Set primary amputations are almost always bad surgery. Trimming is best done with scissors. It is best to render the limb bloodless by means of a tourniquet. It is never necessary to ligature digital vessels, as bleeding will be controlled by pressure dressings. Gauze makes a very good dressing, but if much skin has been lost boroglyceride on lint or moist lint covered with jaconet is to be preferred, for it sticks less to the raw surface when the dressing has to be changed. Parts must be brought together without tension and the fewest possible stitches used. At first the limb should always be placed on a splint. It should either lie upon a pillow at the patient's side or across the chest, or be swung by means of a pulley from the ceiling. Free drainage is essential, and can be accomplished with gauze strips lightly tucked in. In some cases rubber tubes will serve a better purpose. Washing the injured part is important. It is well to have the hand and arm bathed for half an hour night and morning for the first week. The dressing should be such as will not stick. Dressings of this character are boroglyceride on lint, red lotion on lint, carbolic oil on lint.

In injuries of the fingers the greatest care should be taken to avoid amputation. A badly deformed finger is often better than none at all. The secret of success in injuries to the palm lies in free drainage. A limb kept long on splints becomes very stiff. To avoid this movements of the fingers and massage must be employed. If a finger is to be permanently stiff it would be better fixed in the semiflexed position. If a cellulitis has set in, two or three incisions three or more inches in length should be made. Free drainage being secured the arm must be perseveringly used, and the patient encouraged to keep the hand in the bath as much of the day as possible.

Operation for Volkmann's Contracture.

—Rolland, in The London Medical Lancet, describes an operation which he performed on a girl 6 years old for Volkmann's contracture following a fracture of the radius and ulna. The whole left upper limb having been very thoroughly cleaned and compressed on the previous day, an operation was performed a little more than four months

after the accident. Anesthesia was produced by ethyl chlorid followed by ether. A tourniquet was applied round the lower third of the arm and an incision was made along the middle third of the radial border of the forearm; the wound was placed slightly in front of the interval between the radial extensors of the wrist and the special extensors of the thumb. The posterior border of the radius can be easily felt in this interval before an incision is made, but a wound over the extensor carpi radialis longior gives a better access to the radius. This tendon and the radial nerve protected by it were drawn forward and the extensor carpi radialis brevis was retracted in the opposite direction. The radius, having been well cleared of soft parts, was drilled at two points, one and a quarter inches apart, and then a portion of it three-quarters of an inch long was removed by the aid of a small saw. The piece of bone removed extended from the pronator teres insertion to the pronator quadratus; some of the fibers of the former had to be detached from the bone to allow the removal of enough bone. The wound was now covered by a temporary dressing, during the removal of a similar portion of the ulna through a longitudinal incision along its subcutaneous border. Care was taken to divide the ulna an inch higher than the radius so as to prevent cross union by callus. The bone ends were brought together and fixed in apposition by means of fine silver wires, one for each bone. The bones were soft and the wire cut its way out by fissuring the upper ulnar fragment and another hole had to be drilled farther away from the section; this was difficult and it demonstrated the wisdom of drilling the bones before sawing them. The drill holes in the radius had been so directed that when the wire was tightened the lower fragment of the radius rotated into a position of semi-supination. Thus the troublesome fixation of the hand in full pronation was corrected. During the operation it was noticed that the deeper flexors in front of the radius and ulna were firm and fibroid. On removing the tourniquet there was but little bleeding, so the wounds were at once sutured and the limb was enveloped with aseptic dressings and lightly secured in good position on an internal angular splint in order to preserve the semi-prone attitude of the hand. When the operation had been completed, the wrist and fingers could be extended almost, but not quite, into a straight line with the forearm. The splint was long enough to maintain this correction. The operation lasted for forty minutes. After the fourth day passive movements of the fingers were carried out several times daily and the child

was encouraged to move the fingers from the first day. When the bones had united, pronation and supination were also practiced diligently and massage also was carefully performed after the ninth day. The child can now use the hand for most things, has a good range of movement in the fingers, a powerful grip, and supination and pronation are very well performed.

Obscure Cerebral Manifestations of Tuberculosis.—Fortune, in *The London Medical Lancet*, records three cases of tuberculosis in which the cerebral symptoms overshadowed those referable to lesions in other organs. In one patient delusions of a melancholic nature were prominent, though a cavity developed in one lung and the autopsy showed in addition enlarged adrenals, these structures being studded with colloidal cysts and thick, caseous pus deposits. The author discusses the relation of the lung and adrenal lesions in their etiological aspects. In the second patient there was confusion, semi-stupor, and a history of epileptic attacks. Caseous nodules were found in the lungs and bronchial glands. A curious condition was found in the brain. On running the hand over the cortex hard patches were felt where the pia mater was firmly attached. The cortex was firm and tough, and fibrous in feeling. These scar-like nodules were less than pea-sized and in the cerebrum of each side, but not in the frontal lobes, six such spots being on the right side and four on the left. In addition, in the cortex of the right occipital lobe a cyst with tough walls and containing caseous granules was found. The cyst was a quarter of an inch in diameter. None of these cortical nodules was encapsulated or easy to separate from the surrounding gray matter. In both lateral ventricles the ependyma was granular and small calcareous nodules of the size of a hempseed were found. In the left lobe of the cerebellum the white matter was firm and difficult to tear, and the gray matter was almost non-existent. The white matter was contracted and gritty on section. In a third case of delirious mania, a cavity was found in the lung. On the basis that a toxemia is the cause of this form of insanity, one must presume that mixed infection had occurred. Many are the causes assigned to this disease, quite as many, in fact, as to all diseases not known to be due to a specific organism, and pulmonary tuberculosis is in this array.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR
CHARLOTTE, N. C.

THE ROENTGEN RAYS IN MALIGNANT DISEASE.

Over ten years have now passed since the beginning of the use of the Roentgen rays in the treatment of malignant disease. We can therefore begin to estimate its actual value. It has been established beyond dispute as a method of treatment that must be recognized. In the treatment of carcinomata of the skin, it has no equal. If these cases are treated early and before they have been tampered with by means of caustics or operations, and before the disease has extended to the deeper tissues, practically all cases will recover, as claimed by Pusey, Pfahler, and others. If treated after they have recurred, or when they are far advanced, the course of treatment is correspondingly longer and they are less likely to be followed by good results, though even at this stage it is probably the preferable method.

In the treatment of deep seated carcinomata, the results are not brilliant, but a review of the literature upon the subject will show that practically all cases treated up to the present time were very advanced or recurrent in type. The method can therefore not be fairly compared with operations, for these cases have passed beyond operation. The Roentgenologists who have had most experience and who are most careful do not, as yet, even ask that the patients in an operable stage be referred to them for primary treatment. They prefer to work conjointly with the surgeon and treat before or immediately after operation, and thus control the cells that may have been left behind by the surgeon, no matter how careful he may have been.

It is, however, not fair to the Roentgenologist for the surgeon to operate upon an advanced case, and then leave the patient or the friends under the impression that he has cured the patient and that the rays are used merely as a precautionary measure, when as a matter of fact he knows that disease has been left behind, and that it is impossible for him in these advanced cases to reach all of the involved glands. Neither is it fair to any one for him to leave the patient or friends under the impression that recurrences are "rheumatism." Such advice is apt to make the patients careless in the use of the only remedial agent left to them. Some brilliant results have been ob-

tained, but it is hoped that with improvement in technique much more can be accomplished in the control of this, the most loathsome of diseases.

In the treatment of sarcomata, there is today probably no remedy which has produced such brilliant results. Reliance upon operation alone is looked upon with disfavor even by the surgeons themselves. (Babcock—Surgery, Gynecology and Obstetrics, February, 1908). By means of the Roentgen rays, Pfahler has obtained good results in over fifty per cent. of the cases treated. (Pfahler—Therapeutic Gazette, July, 1908). He however believes that best results are obtained when the disease is removed surgically and this immediately followed by a course of Roentgen treatment thoroughly and efficiently applied. There is little doubt that the difference between good results and bad results from the use of the Roentgen rays depends more upon the skill with which the applications are made than upon anything else.

The technique of Roentgenology today is as varied and difficult as that of surgery. Any one can own a set of surgical instruments, but every one will consider first the surgeon and not the instruments. Roentgenology is even more difficult because the technique is difficult of description, and because so much depends upon the skill obtained from a long and varied experience.

NON-MEDICINAL THERAPEUTICS.

All the treatments and methods of therapeutics not strictly medicinal that have sprung up within a decade are adding materially to the complexity of modern medical practice.

It is true that many of these treatments have originated in the brains of cranks and faddists, who with their narrowed field of vision see no virtue in any healing effort which does not include their own measures. This, however, does not render these treatment forms less valuable when properly directed.

It is equally true that the average medical man views with derision any attempt at therapeutic measures not taught at the particular college which granted him his degree.

The general public is a fairly well balanced set of individuals in all respects except in directing their own state of physical and mental well being. Upon the slightest deviation from their accustomed state of health they will indulge in therapeutic obsessions both sad and silly. Everybody, from the Chinese herb doctor and newspaper specialist down to the long haired metaphysical healer, is called upon. Even in those out and out quack shops fitted up

with appliances of all sorts, many cures are effected, which no matter how unscientifically obtained or absurdly produced impress the patient, and win over a great number which rightfully belong to us.

Exclusive of the quacks and patent medicine venders there are methods of treatment, however, which really have a value as yet not fully appreciated by medical men in general, and which when taken up properly in a scientific way will debar the charlatan and benefit the public at large.

In this class is included the whole field of so-called physical therapeutics, embracing mechanics, thermic energy, light and electricity. These subjects have developed with astonishing rapidity and to such an extent that many well equipped institutions are providing the treatments to an ever increasing clientele.

The intelligent public is intensely interested in any new instrument, machine, or form of treatment of which it hears, and will go to the quack to get it if the regular practitioner is unprepared. Now these treatments have an intrinsic value and are productive of much more good than is generally believed.

On the other hand our medical colleges are apparently in no hurry to teach these subjects. In perhaps only two or three leading American schools is the whole matter dignified by a chair on physical therapy. In most colleges the Professor of Dermatology gives a few lectures on x-ray and light therapy. The Professor of Neurology sums up the treatment of nerve cases with, give strychnine and tonics, fresh air and outdoor exercise. If these fail try electricity. The head of the chair on materia medica and therapeutics casually refers to the fact that medical gymnastics are taught in Scandinavia, hydrotherapy in Carlsbad, high frequency effects in France and dietetics in Battle Creek.

This is usually the extent to which the different subjects enumerated are gone into.

If medical gymnastics and massage were allotted as much time on the calendar as pelvic surgery, would osteopathy continue to flourish as it does today? If the control of function by mental force or suggestion or hypnotics were scientifically expounded would the Eddyites multiply as rapidly and would it be necessary for preachers to turn clinicians as is now the fad?

We believe not.

OTHER HEROES.

The Journal of the American Medical Association for July 25, 1908, under the caption of "The Canal Zone" discusses the achievements of Colonel Gorgas and his associates on the "Strip" in recent years.

We would not in any way detract from the splendid sanitary record which he and his officers have made, but we would at the same time remind our esteemed contemporary that there are others who have done equally good work for which they have received little or no credit. The Journal, in speaking of the heroism of Lazear, Reed and Carroll, makes the statement that the substantial work of Kean in Cuba has established the role of the stegomyia as the intermediary in the transmission of yellow fever, but fails entirely to even mention the magnificent campaign of White during the New Orleans epidemic, which was the first application of the mosquito dogma on a large scale. The work of Gorgas has been done under what practically amounts to military law, and while it has been excellent both in conception and execution, it has not been conducted in the face of the bitter opposition which Blue has met in his wonderful bubonic plague campaign in San Francisco. Imagine a large city undergoing rehabilitation after the greatest catastrophe of the century; with a city treasury practically empty; without sanitary laws; with a population which did not and would not believe that plague existed and which defied or neglected all attempts to introduce sanitary reforms; and some conception is gained of the enormous problems which faced Rupert Blue at the beginning of his work in San Francisco. Imagine this brave man with a handful of officers and a few untrained laborers drawn from every walk of life; without organization; without tools, traps or disinfectants; evolving from this chaotic condition a clean city, a magnificent sanitary corps and a public thoroughly educated to the necessity for the work and heartily co-operating in solving this national problem. Such victory reflects as much credit on the American Medical Association as any work which has been done by its president-elect. We would commend this sanitary achievement of the Marine-Hospital Service to the Association and would suggest that it, too, be given its mead of praise.

THE RESTRICTION OF SURGICAL OPERATIONS.

The case of Coroner Troutback and Sir Victor Horsley in London excites the indignation of most medical men. To think that a coroner has the presumption to call upon a surgeon of Victor Horsley's standing to come before a coroner's jury and "explain" when one of his patients dies from an operation for removal of a tumor of the brain. It has been well said that with equal justice the internist should be called upon to explain when his patient dies after the administration of a drug. It is true that the effects

of a surgical operation for good or ill are usually quite evident, while the effects of drug administration are often problematical. And yet when the patient's fate is hanging in the balance a medicinal dose of some powerful drug may turn the scale for or against—just as the surgical operation usually does. As a profession let us not be too sensitive. In these days surgery is pre-eminent—every one knows something about it and all are doing operations. That much good is done—that much suffering is relieved, and that many lives are saved cannot be questioned.

That much harm is done, that much suffering is caused, and that many lives are brought to an untimely end without question are equally true. Indeed, the pessimist has raised the question as to whether, on the whole, surgical operations are productive of more good than harm. Too often a surgical operation is like a game of chance in which the patient's life is the stake. Then it behooves him who plays for the patient to do his best—to bring to bear all the knowledge and skill and experience that can be obtained—even to the calling in of an abler surgeon to do the work. A surgical conscience is very necessary. The layman cannot judge of a surgeon's ability any more than he can of an internist's, and it is well known that an other sensible person will sometimes trust his life in a formidable operation to an inexperienced man in preference to one whose experience and ability are beyond question. Look at the army of osteopaths, Christian scientists, and other quacks who thrive on this want of ability to discriminate. It has been aptly said that a man's intelligence must not be judged by his selection of his wife, of his religion, or of his physician. The itch for doing surgery nowadays is astonishing. The gynecologist was criticised for meddling surgery, but he was not to be compared with the would-be general surgeon of today. Young men with the ink of their medical diplomas scarcely dry—and themselves scarcely dry behind the ears—are doing operations that make the experienced surgeon stand aghast at their temerity. And worst of all these young operators are especially fond of the abdominal cavity as their field of work. Many are the lives sacrificed on the altars of ignorance, self-conceit, jealousy, and the ambition to get a surgical reputation quick.

Of course the young surgeon must get experience, but let him select a way not so destructive to human life. We must remember that the young men now graduated in medicine are far better qualified to practice than were the young graduates of twenty years ago. Yet, to be surgeons they

must hasten slowly—taking the usual courses in hospitals, then a long period of apprenticeship to an active surgeon, gradually advancing to major surgery, when after a reasonable time they will find themselves properly equipped in skill, experience, and judgment to undertake the practice of surgery. The ideal remedy for polysurgery would be a fully developed conscience in every surgeon—so that he would never operate unless it was necessary and unless he was the best man obtainable—regardless of jealousy, self-conceit, desire to make money, or ambition for a surgical reputation. But the ideal is seldom obtainable. As a question for discussion—how would it do to have every case in which a patient dies as a result of a surgical operation or after the administration of a powerful drug examined by a board of medical men who would determine whether or not the treatment had been justifiable and every precaution taken to prevent death?

REMOVAL OF THROMBI FROM THE PULMONARY ARTERY.

In the *Deutsche medizinische Wochenschrift* of July 2nd, 1908, F. Trendelenburg describes his operation for removing thrombi from the pulmonary artery. The first operation of this kind was done by Dr. Sievers, the thrombus being easily removed, the patient rallied, but died fifteen hours later. Trendelenburg's case was a man 45 years old who was under treatment for fracture of the left femur caused by pulling on his boot (probably beginning tabes). About three weeks after the fracture while wearing a plaster cast, he was taken with chilly sensations; about fifteen minutes later he became suddenly breathless, complained of blindness, and presented a cyanotic, shrunken appearance with restlessness and anxiety. The respirations were deep and hurried, pulse weak, heart sounds soft and free from murmurs. He was taken to the operating room and improved, the pulse becoming stronger and the breathing more quiet, so that the operation was delayed, when suddenly the patient became worse, and great anxiety, dyspnoea, small irregular pulse though the mind was clear, indicated impending death. Under chloroform an incision was made along the left border of the sternum from the upper border of the first rib downward, to that of the third rib. A horizontal incision was then made from the first incision along the left second rib and the two triangular flaps thus made were turned back. The second rib was resected near the sternum, the pleura being opened, and the pericardium was opened at the upper border of the third rib. The aorta and pulmonary artery were held forward

by means of a large curved sound until a rubber tube could be passed around them. These vessels then ceased to pulsate, while the heart contracted weakly and irregularly, and just at this time breathing ceased, and there was not time to separate the pericardium from the pulmonary artery; so the rubber tube was drawn up in order to control the pulmonary artery and the latter was quickly opened with the point of the knife. Polypus forceps were introduced and a thrombus 34 centimeters long was removed. The forceps were again introduced and three smaller thrombi were removed. Blood never flowed and the wound in the artery was closed with forceps and the rubber tube was relaxed. Artificial respiration became necessary at this point, and soon had the respirations and pulsations of the aorta and pulmonary artery going again. Some trouble was experienced in suturing the wound in the pulmonary artery on account of its strong pulsation, but this was done by drawing the artery forward by means of the rubber tube until a silk suture could be passed and tied, then the tube was relaxed and the artery permitted to pulsate awhile—this procedure being repeated until the suture was completed, then the tube was removed and the wound closed. General condition was fairly good until next morning when he gradually grew worse with dyspnoea, weak, and irregular pulse, and death occurred 37 hours after the operation. The necropsy showed the wound in the artery well closed—in the left branch was a large thrombus and in a small trig of the right branch was a small plug. Thrombi were found in the deep veins of the right leg. The aorta showed sclerotic changes.

Such operations are daring but the patient's condition is desperate and anything should be welcomed which offers a ghost of a chance. It is just a dozen years since the first operation on the human heart was performed and now no less than 150 such operations have been performed. In America at least 15 cases of cardiorrhaphy have been performed and Nietert, Hill, Gibson, Stewart, Blake and Vaughan have each had a successful case. While Roberts, of Philadelphia, and others, more than twenty years ago advised operation for wounds of the heart, the impetus to heart surgery in America was undoubtedly given by Hill, of Montgomery, in an article published in 1900, in which he gave the results of seventeen cases of suture of wounds of the heart chiefly by Italian surgeons. The mortality is about 60 per cent., but will undoubtedly be reduced in the near future. Let us hope that soon the operation for removing pulmonary artery thrombi will be equally as successful.

PSEUDOTETANUS IN ALCOHOLIC CONFUSIONALS.

During the last couple of years there have come to my notice a number of interesting cases diagnosed tetanus. Among the cases seen there were some good specimens of classical tetanus without a doubt, as evidenced by not only the history and evidence of injury, the clinical course with trismus, convulsions, rise of temperature, etc., but also by microscopical findings. In six of these cases they died shortly after admission, four of them having received considerable doses of antitoxin and antispasmodic treatment. The failure of the antitoxin to cure was attributed to the fact that the patient came to the hospital too long after receiving the injury for effectual cauterizing of the wound and administration of antitoxin, even though the antitoxin in several cases was injected into the great sciatic and spinal canal. Some of the cases had had convulsions before admission. As a precaution in suspicious cases it is the practice to thoroughly cauterize wounds received by an unclean instrument or powder wounds and to use tetanus antitoxin. In some mild cases this treatment seems to succeed. As yet we are not prepared to report on the magnesium sulphate treatment.

In contrast to this class of cases it is desired to quote three cases happening within about a year, in whom was found a different symptom complex, and yet with the characteristic rigidity, especially in the muscles of the inferior maxilla. Apart from the ordinary tetanus caused by the anaerobic tetanus bacillus gaining entrance to the body as through a punctured wound made by some rusty instrument or cases in infants from infection through the cord, there are conditions of spasm of the temporal, pterygoids, and masseters from some irritation of part of the motor portion of the fifth nerve apparatus apart from that caused by a specific virus. Under this head would come reflex irritation from a diseased molar, spasmodic action associated with tumor in the region of the tampero-maxillary articulation simulating a true or false ankylosis, luxation at this joint, possibly some cases of influenza and certainly in cases of hysteria and allied mental affections.

Now whether from fear, from delusion, from the poison or from a neurasthenic state (for alcoholics simulate this state repeatedly) there may be observed a tumor in young persons after long continued use of alcoholic stimulants a trismus. The picture presented by a case of this kind looks clinically at first sight like tetanus. In the three men referred to as closely resembling cases of tetanus there was a distinct history of continued alcoholism, marked locking

of the jaws, so that the mouth at first could not be opened and occasional twitching in two. One case at first somewhat resembled tetany, and in the course of a couple of weeks was discharged with good control over his inferior maxilla; the other two, although gaining control over the inferior maxilla, developed more and more mental confusion until they were committed to the Insane Department. One of these died. He had a burn and this was treated with bovine; this was examined for tetanus bacillus but was negative. None received the antitoxin.

These cases might be called alcoholic trismus or pseudo-tetanus, just as there is recognized a pseudo-lyssa or pseudo-hydrophobia. There is seen to accompany the condition an alcoholic confusional insanity. Unfortunately a post-mortem was not granted on the case that died.

The important thing is to watch such cases carefully at the start lest we may be dealing with a true case of tetanus.

ANTI-TYPHOID SERUM OF CHANTEMESSE.

As time goes on man's knowledge of disease more and more gives promise that one day we shall know and understand the truth and that there shall be no such thing on the earth. The development of serum therapy is making wonderful strides and with the discoveries of Wright a new impetus has been given investigators along these lines. The work of Flexner in the Rockefeller Institute on anti-meningitis serum arouses in the minds of the profession the hope that we shall yet possess a weapon which shall stop the ravages of one of the most terrible diseases known. While it is not yet time to attempt any positive conclusions from his work, yet enough has been accomplished to warrant the belief that the remedy will yet become of immense value in the treatment of meningitis due to the *diplococcus intracellularis*.

And recently attention has been called by the New York State Journal of Medicine to the inoculations practiced against typhoid fever in the British Army. These inoculations apparently were attended with remarkably successful results, and the work of various men would seem to encourage the hope that the time is not far distant when medicine will possess a successful serum against typhoid.

Chantemesse has recently carried out elaborate researches, his observations covering a period of six years. He reports upon one thousand cases subjected to treatment by a serum obtained from the horse. Among these the mortality was 4.3 per cent. as against a mortality of 17 per cent. among about the same number of patients treated

in the other hospitals of Paris. Others who employed this serum have reported equally good results. At the military hospital of Val-de-Grace ninety cases were treated with the serum with the result of five deaths. During the six years preceding, the mortality had been over ten per cent. These comparative statistics have focussed a good deal of attention upon this serum, which Chantemesse believes can be made instrumental in reducing the present mortality from typhoid at least seventy-five per cent. He lays especial stress upon the early employment of the serum, and shows that the matter of time is of great importance. The earlier the injection the greater is the probability of success and this means that early diagnosis is imperative. To this end he has described the ophthalmo-typhoid reaction, of which much has been heard and if dependable marks an epoch in diagnosis. Chantemesse states that he has not seen a death where the serum was used within the first ten days of the disease.

It is proper that the medical world be not too eager to accept the results of these investigations, for it is impossible to know whether this particular serum is to conquer typhoid. It may be that the celebrated investigator whose name has been made illustrious in many other lines of scientific research, and whose authority alone would stamp any statement as deserving of serious consideration, is but forging one more link into the chain of truth and that at some other time the serum will be found which will prove specific for the typhoid poison. Be that as it may we know that the work is being done in that field of therapeutics out of which we most hopefully look for help.

EPULIS.

The term *Epulis* has, since antiquity, been applied to tumors occurring upon the gums. It is purely a topographical expression and is applied to growths of various histological structure, presenting different appearances and the possessors of various prognosis and etiology. According to an article by Dr. Cumston, published in the Dublin Journal of Science, they are more or less pedunculated, or assuming the aspect of a mushroom, and, according to their structure, they may be quite soft, or, on the other hand, tough to the feel. In color they may be light or dark, and in size they vary greatly. Occasionally they hang as if suspended from a dental alveolus which is empty, or from a dental fistula; while in other cases they surround a tooth which, from their presence, has become loosened, the latter condition resulting from an absorption of the bony rim formed by the alveolus, and they then transform the mu-

cous membrane which covers the parts into an irregular, degenerating, ulcerated surface. Epulides occur also in the form of nodules or infiltrations spreading peripherally, or, on the other hand, they may infiltrate the surrounding tissues. Some types of this neoplasm, quite early in their evolution and while still of small dimensions, may cause severe general disturbances due to the hemorrhage to which they give rise and also pain; whereas other examples met may attain the size of an apple or a closed fist, to such an extent that there may be displacement of the neighboring organs, accompanied by disfiguration of the face, without any disturbances arising in the patient's general condition. As to prognosis it may be said that these growths can be closed among both benign and malignant tumors. Fortunately the former type is far in excess.

Microscopically, epulides represent the sarcomatous type of growth; through the substance one may occasionally find a brownish pigment scattered. The spindle- and round-celled sarcomatous elements are evident, with alternating relationship between the cells and intercellular substance. As Virchow has said, sarcomatous epulis, like other periosteal sarcomata, usually has a mixed make-up. Cartilaginous, fibrous, cellular, and occasionally mucous elements can be combined in the same growth. Generally speaking the softer structures predominate. In the softer portions the cells usually become quite large, and develop into polynuclear giant cells and this is characteristic, although the number of giant cells vary from one tumor to another. Virchow substituted the term *sarcoma gigans* et *cellulare* for the term *epulis*. He also advanced the theory that the cells of epulides have their origin in most cases from periosteum and that the giant cells have their origin in the bone marrow. Besides this theory which maintains that the cells of the bone marrow are the source of the giant cells, there are further varied conjectures as to the origin of the growth. In spite of the fact that certain authorities consider that the origin of giant cells is the result of a cell degeneration, others believe that it would indicate a particularly favorable condition of nutrition, resulting in an unusual growth of the cells, while others again contend that the origin of the giant cells is to be found in leucocytes, epithelial and intracellular tissues, the endothelium of the blood vessels, lymphatics and lactial canals. Other pathologists believe that the giant cells have several origins, while again others believe that these cells may arise from all the above-mentioned elements.

Just in this connection the work of Ritter

would seem to throw interesting light on at least one source of origin of giant cells. He removed an epulis in such manner as to preserve its vascular apparatus as far as possible and immediately placed the tissue in formalin solution where it hardened along with the profuse blood content which he had in large measure been able to retain. Microscopic examination of this particular specimen revealed to him that the giant cells were not independent elements, such as are found in bone marrow, but existed in the form of buds arising from the vessels, whose endothelium extended directly into the protoplasm of the giant cells.

While the giant cells are the characteristic elements, the main tissue is composed of spindle cells or of round cells; occasionally both elements are found together, but usually the spindle-cell type is alone evident.

A NEW PANCREATIC REACTION.

The difficulties presented in the diagnosis of pancreatic disease and in fact the inability of the majority of physicians, except a few of the elect, to diagnose the existence of morbid changes in this viscus with any degree of positiveness has to some extent been eliminated by a test of the urine originated within the past few years by Dr. Cammidge, of Great Britain. This investigator first made known his discovery in 1904. As described at that time the reaction consisted of three parts and was necessarily very complicated. Since that time Dr. Cammidge's investigations have resulted in distinct improvement and simplification of the reaction and although it has already been reduced from three separate processes to a single one, it is yet too complex for general use in practitioners' own hands, and therefore urines to be examined for this reaction will still need to be sent to some clinical laboratory where all the facilities for carrying it out are at hand. It is said that even when the procedures recommended are faithfully followed there may be at first some difficulty in obtaining positive reactions. For this reason it is not likely that the average practitioner with his scanty equipment or even the better equipped laboratory worker will be successful in carrying it out until he has learned all the details of the procedure. Many results of the test have been and are being published, but it will probably be some time before the precise limitations of the test shall have been determined. It is also probable that the test will be simplified as time goes on. Dr. Cammidge does not contend that at all times and under all conditions the results given by this reaction of the urine are indicative of the presence of pancreatic disease. He does claim, however, that it is a consid-

erable aid to diagnosis, as that at least the 50 per cent. of cases now said to be only recognized post-mortem might be reduced to a more creditable figure.

Dr. Chalmers Watson from his results in a series of cases in which he found the reaction positive draws conclusions concerning the significance of the test as follows:

He finds—1. A group of cases in which there are definite clinical or pathological evidence of serious organic disease of the pancreas; for example, acute and chronic pancreatitis, usually associated with disease of the bile ducts.

2. A group of cases in which the reaction in the urine is associated with pronounced arterial sclerosis, a condition usually accompanied by more or less sclerosis in different glands.

3. A group in which the reaction is dependent on congestion and catarrhal conditions of the gland ducts and substance, with associated toxæmia—for example, advanced heart disease, appendicitis, pneumonia, malaria, and the like.

According to the latter authority if "this urinary reaction is carefully studied along with the other clinical features of the case, * * * this new test will prove of great value both to physicians and surgeons in the diagnosis and treatment of pancreatic disease."

Dr. Cammidge urges the importance of examining the feces for undigested muscle fibres and for fat in cases in which it is uncertain whether the pancreatic affection is inflammatory or malignant. It seems that in malignant disease of the pancreas the reaction is positive and along with this the presence of undigested muscle-fibre appears to be of considerable significance.

NOTICE.

Our attention has been called to the inadvertent omission of the name of Dr. Phillips Norris, of Rutherfordton, N. C., from the list of successful applicants for license before the recent meeting of the State Board of Medical Examiners. We take pleasure in thus correcting our list as published in our July issue.

ELECTRIC ANÆSTHESIA.

An entirely safe and successful method of producing anæsthesia has not yet been found. That this statement is true is attested by the numerous attempts to improve our present methods. Various combinations of anæsthetic drugs and unnumbered methods of administration prove beyond a doubt that the anæsthetizers art is far from perfect. We are constantly seeking and vast improvements have been made in the administration of anæsthetics, yet the fact, which every doctor recognizes, that anæsthesia is always a step—and a very long

step—toward death, even though it be given under the most favorable conditions from every point of view, keeps our minds alert to reach a time when we can say: "there is no danger."

We have heard that electricity has been employed, or that attempts successful and unsuccessful have been made to employ it, for every disease condition that medicine ever had knowledge of. And now latest of all we learn that it is being used to produce sleep and even complete anæsthesia. Robinovitch has published the results of his investigations with electric anæsthesia, and his conclusions are that for laboratory work it is superior to both ether and chloroform. Experimenting upon himself the above named observer was able to produce complete anæsthesia in his forearm by means of the electric current and from this experiment he concludes that animals do not suffer pain during operations when subjected to this form of anæsthesia. He has been able to produce anæsthesia lasting as long as 8 hours and 20 minutes. The advantages of the method are thus enumerated by Robinovitch:

1. The blood pressure, respiration and temperature remain about normal, even when the anæsthesia is prolonged for eight hours or a longer period of time.

2. Chloroform or ether anæsthesia in animals causes death if prolonged for two hours.

3. Electric anæsthesia can be induced not only centrally, but also locally or regionally.

4. I have been using electric anæsthesia in laboratory operations on animals during the past two years and have never lost any animal from the effects of this anæsthesia.

5. The voltage necessary to induce electric anæsthesia is so small (from 5 to 10 volts for a dog weighing from 10 to 80 pounds) that danger to life from this potential is entirely out of the question.

6. Electric anæsthesia is suspended as soon as the circuit is broken and there are no after effects from this form of anæsthesia.

7. The operations which I have performed with electric anæsthesia are important, as they comprise trephining of the skull and exposure of the brain, exposure of the carotid artery and the pneumogastric nerve, abdominal section, etc.

During electric anæsthesia the superficial reflexes are exaggerated, although there is apparently no pain felt, and there is also the drawback that the operator is exposed to the current. No attempt has yet been made to study the question of electric anæsthesia in man; Robinovitch recommends it only for laboratory surgery. He says the electric current necessary to induce electric

anæsthesia is a direct interrupted 110 times per second and passing one-tenth of the entire period. In man he says the potential necessary is probably from 50 to 80 volts, more or less.

The Report of the New Orleans Board of Health for 1906-'07 is full of valuable information concerning its work since the reorganization of the Board along the present lines. The city of New Orleans has found that it is safer to place these matters in the hands of medical men and the results prove that no mistake has been made in choosing such men to care for the health of the public. Among the more important work accomplished by the Board is the improvement in the general food supply and particularly the milk supply of the city. To this end they have succeeded in removing dairies out of the built up portions of the city and have established a standard of thirteen per cent. solids for milk. The prosecution of milk venders whose milk shows a weighable quantity of sediment has resulted in clean milk which is vastly more important than rich milk. In addition an ordinance has been passed and is enforced which gives the Board the right to destroy without compensation to the owner, all foods and drinks unfit for human consumption. An ordinance which provides for the inspection not only of local dairies but also of outside dairies is being enforced. The Board is now fighting in the courts for the right to test dairy cattle with tuberculin and if upheld another great source of danger may be eradicated. It is of interest to note that the infant mortality of New Orleans since 1900 has been lower than that of Boston, although the latter city has had a Milk Commission for the bacterial count of milk and the grading and certification of special milk and dairies.

The Board has three departments—Vital Statistics, Food Inspection, and Sanitary. It employs a chemist and a bacteriologist, who have the use of the well-equipped laboratories of Tulane University. Dr. W. T. O'Reilly is Chairman of the Board and Health Officer of the city.

LOCAL ANESTHESIA IN MAJOR SURGERY.

Although the use of cocain in spinal anesthesia was short-lived, its use as a local anesthetic will always be a valuable aid to operative surgery. Its value need not be limited to minor surgery, for when necessary it may be used in almost any operation with satisfaction to the operator and to the patient.

Care and skill, however, are imperative.

Nothing stronger than a one per cent. solution should be employed for hypodermic injection, and this should be progressively diluted as the injections proceed. After injecting a few drops of the full strength, the amount should be replaced with sterile water or salt solution; after a second injection of five or ten drops, the remaining contents of the syringe is further diluted, and so on. In this manner a line several inches in length may be anesthetized with only one syringe full of one per cent. cocain.

It is understood that every time the needle is reinserted it is plunged into a part already anesthetized, so that the first insertion is the only one felt by the patient. An ordinary hypodermic syringe and needle answers the purpose, although it is of course best to have one which can be boiled. It must be borne in mind that the drug will soon be absorbed into the general system, when constitutional symptoms will appear. For this reason, a minimum amount of a weak solution must be used, and the skin incision made as soon as it is injected. Anesthesia occurs instantly, and the incision frees a large proportion of the injected fluid.

One of the most important points is the proper injection of the skin, which is by far the most sensitive tissue. Injection is made into the skin, not under it, as is often done. Perfect anesthesia of the skin occurs when the injection produces sheals.

In performing major operations it is well to aid the anesthesia by previous hypodermics of morphine and hyosine. A laparotomy which does not require much handling of viscera may be performed by this method with but very little discomfort or pain to the patient. The careful manipulation of tissues necessary, however, is undoubtedly a great strain on the operator. But careful manipulation causes less damage to the parts, hence rapid healing of wounds results.

Often the skin will be found to be the only part requiring anesthesia. The peritoneum is sensitive, and must be handled gently. Any nerve trunks which appear in the field should be injected, e. g., the ilio-inguinal in herniotomy. Subcuticular suture of the skin is especially useful in this method, as it may be done without causing pain an hour or more after the skin has been anesthetized.

IMPROVEMENT IN MEDICAL EDUCATION IN THE SOUTH.

In many instances a physician's success depends on two things—the amount of energy he puts into acquiring such knowledge as is offered him, be it ever so meagre, and the amount of confidence with which he can inspire his patients afterwards. In

such cases, other factors, such as high preliminary education, fine medical course, subsequent hospital training, etc., are secondary. Examples which prove this assertion are familiar to every one.

Nevertheless, for the average man it is true that he will succeed in proportion to the advantages laid before him. In view of this fact it is pleasing to observe that the time is not far distant, if it is not already at hand, when the student can receive every whit as good medical education in the South as he can anywhere else in the land. This is only in keeping with the advances in other lines in this section.

Vast improvements in curriculum and methods of instruction have been in progress for several years. Didactic lectures have given away largely to laboratory and clinical methods, and the number of subjects and length of course required have been increased up to the standard set by the leading Universities.

Two of the most important steps, however, without which medical education is far from perfect, are of more recent origin. These are entrance requirements and hospital facilities.

Most of the Southern schools now require a high school diploma, or the equivalent thereto, before one may begin his medical studies. This is one of the most needed advances yet made. Heretofore many doctors of medicine have been sadly lacking in preliminary education, which has ever been a handicap to them and to their patients.

The addition of a hospital to the course is a feature which cannot be too highly commended. The former want of such an advantage was one of the principal causes that drove medical students to the North. Many young physicians would go out from Southern Colleges without ever having seen a patient sick in bed. Out-patient clinics, no matter how large and well-conducted, could not take the place of seeing even a few patients sick in bed and watching their progress from day to day. Today it is well recognized that the last year of a medical course should be spent chiefly in the hospital; the senior student should have some experience as an interne.

But one thing yet remains to put our schools on an absolute par with the best to be found anywhere, and that is ample endowments. These will be necessary to employ salaried teachers and to perfect our equipment. Surely, with the growing prosperity and wealth of the country, we will soon read of our philanthropists answering this call.

VARICELLA FROM THE STANDPOINT OF DIFFERENTIAL DIAGNOSIS.

When the problem of isolation of cases to prevent the spread of disease comes up, the matter of making sure of the nature of the disease is of importance. More than once cases of Acute Articular Rheumatism have among other things been mistaken for Erysipelas and this has happened among experienced men; but it is in contagious cases that resemble non-contagion affections that trouble arises. Scarlatina has been admitted to the wards mistaken for Roseln. variola for syphilis, and frequently diphtheria for acute follicular tonsillitis.

Varicella is mistaken for quite a variety of conditions. It is seen mistaken for variola, secondary syphiloderma, herpes zoster and scabies.

A characteristic point of the disease is usually its very mild course. Occasionally we see a case, particularly in an adult, in which the patient feels quite bad. In these cases there is a slower course: instead of the sudden appearance of a few vesicles over the body there may be a prodromal erythema, an appearance of red spots so that you are not quite sure of the disease, and then a profuse crop of pustules; even a hemorrhagic rash may be found. We see the disease more frequently in children and in foreigners. The eruptive fevers and other skin conditions, it may be noted, seem in general considerably more frequent in newly arriving foreigners.

The history of exposure to other cases and absence of cases of small pox will help in excluding this latter affection. Small-pox lesions are especially to be found on the forehead and wrists and the severe constitution disturbance, longer duration of the stages, larger lesions, history of having had varicella and neglect of vaccination all help to solve the problem; in infants it may be hard to differentiate. In some instances the eruption of chicken-pox will encircle the body with rather small, oval vesicles and pustules; they will be found on the palms of the hands, the soles of the feet and over the scalp. The lesions are not free from umbilication later as sometimes stated. Such crops when gradually drying up may be complicated by some furuncles and a state resembling impetigo; this may arise from infection in scratching.

In a syphiloderma we look for a history of chancre, a non-inflammatory general eruption lesions and not running an acute course, glandular enlargement especially of the epitrochlears, angina and possibly alopecia. Pustular eczema may resemble merely the later stages of the varicella, but it is found more frequently about the face and not generalized over so large an area

as the whole body; the lesions would be larger, more scratch marks present and absence of any constitutional symptoms. Rubella may be taken for varicella in the first stage of the latter; often this first stage is not seen, and when seen lasts but a very short time as a rule, and the roundish spots are discrete, generally not close together, and we find no Koplik's spots nor coryza and bronchial catarrhal symptoms.

Scabies is a disease found frequently in uncleanly children and has small black popular lesions, particularly about the front of the wrists and along the fingers; also scattered lesions over the front of the body. It is characterized by burrow marks between fingers and toes.

The lesions on the hands are sometimes clear vesicles, and these vesicles have been carelessly mistaken for varicella. They are localized, scratch-marks are present and they respond to appropriate local treatment. Herpes zoster should never be mistaken for varicella as it is a disease unilateral on the chest or following the course of the nerve-trunks.

We may at times have more than one condition present. e. g., there may be on the free evidence of impetigo, furuncles may develop with a fading rash and occasionally we have found an axillary abscess or possibly a Branchio-pneumonia. Chicken-pox is not so commonly brought to the hospital or measles; it runs in itself a very mild course and is ordinarily quite free from complications.

All over this country are to be noted most decided tendencies which shall accomplish the more thorough organization of effort toward the establishment of such measures as shall bring about better conditions relating to public health and hygiene. This problem is one to which too little attention has been devoted by the country as a whole. Each section, each individual State, and each town and city have their own peculiar conditions which they have, in their own way, endeavored to meet successfully, and there is no doubt but that enormous good has been done. Societies for the prevention of various things have existed and still are exerting a powerful influence upon the problems which confront our people. There is a great congress on tuberculosis soon to be held in Washington, and the universal interest which is being manifested in this event easily shows the widespread realization of the necessity of a thoroughly organized warfare against the greatest plague to which mankind falls a victim. However, up to the present time the organization and enforcement of public health measures has never been made a

real political issue. It is significant, therefore that both the two great political parties have, at their recent national conventions, mentioned in their platforms the question of control by the national government of such public health measures as fall within the jurisdiction of the federal government. The Democratic Convention, in session at Denver, inserted the following plank in its platform: "We advocate the organization of all existing national public health agencies into a National Bureau of Public Health, with such power over sanitary conditions, connected with factories, mines, tenements, child labor, and other such subjects as are properly within the jurisdiction of the Government and do not interfere with the power of the States controlling public health agencies."

Contrasted with the feeble expressions of the Republican Convention in regard to those matters the above is something to which the attention of all the doctors of the whole country should be directed. Despite the fact that all such movements tend to the ultimate loss of occupation of the physician yet the medical profession is never backward its advocacy of such measures as work for the public good.

Dr. Wiley, the pure food expert, about whom so much has been said lately, finds danger not only in the food we eat but oftentimes in the dishes from which we eat it. Recently he has extended the investigations of the Bureau of Chemistry of the Department of Agriculture to include the examination of cracked dishes taken from some of the "quick lunch" rooms of Washington. Lurking in the seams and cracks twenty-five different species of organisms were discovered by the bacteriologist of the department, a large number of them belonging to the colon group. In spite of the spotless appearance of the kitchens of some of these places, Dr. Wiley holds there is danger from them, since it is impossible to clean cracked dishes properly. The conditions found in Washington could doubtless be duplicated in any large city, and are probably of little importance in the dissemination of disease.

One of the yellowest of the yellow New York Sunday editions but a few weeks ago devoted one whole page to a startling discussion of these investigations by Dr. Wiley. Doubtless we will soon be refusing to eat from dishes which do not show a perfectly unblemished surface.

INTERNATIONAL CONGRESS ON TUBERCULOSIS.

A world-wide interest has been aroused

in the International Congress on Tuberculosis which, within the next few days, will meet in Washington with representatives in attendance from almost every country of the globe. Nothing approaching it in significance has occurred in the history of mankind, for it represents the uniting and consolidation of effort all over the civilized world in a universal warfare against tuberculosis. The National Association for the Study and Prevention of Tuberculosis which has been entrusted with the organization of the Congress has been untiring in the work and the result is that they are now able to publish a partial announcement which already presents a most formidable array of subjects to be discussed. The committee is sending out announcements printed in four languages, with lists of the various committees which have been appointed from the States, cities and from many foreign countries. The plan of organization, prizes offered, information concerning entertainment, transportation, etc. Five prizes of \$1,000 each and one of \$100 are offered by the Central Committee and in addition the Smithsonian Institution will award a prize of \$1,500. Besides numerous gold and silver medals and diplomas will be awarded for meritorious work. The fact that America is leading in this great undertaking, as she does in so many other lines, is due largely to the spirit of the medical profession of the United States.

The section meetings will take place the week beginning September 28, and the exhibition will continue for the entire three weeks, from Sept. 21 to Oct. 12. The program for the week includes two plenary sessions, one on Monday, Sept. 28, at which President Roosevelt will preside, and the other probably on Saturday, Oct. 3. In accepting the presidency of the congress, President Roosevelt promised that if it were impossible for him to preside at the general sessions he would delegate Secretary Cortelyou to represent him. Each of the seven sections into which the Congress is divided will hold two sessions daily except on the days on which the plenary sessions will take place.

In connection with the congress a series of lectures is to be given in Washington, and other cities by distinguished foreigners,

Governor Glenn has appointed the following gentlemen as delegates to the Congress:

Dr. Tait Butler, Raleigh; Dr. W. A. Ashcraft, Monroe; Dr. Thomas B. Carroll, Wilmington; Dr. Burroughs, Asheville; Dr. R. S. Young, Concord; Dr. B. J. Witherspoon, Charlotte, and Dr. E. C. Register, Charlotte.

TITLES OF PAPERS FOR SECTION I.

Dr. William H. Welch, President.

- (Includes titles received up to August 13).
 Milton J. Rosenau, Washington, D. C.—
 "The Viability of the Tubercle bacillus."
 Victor C. Vaughan, Ann Arbor, Mich.—
 "A study of the proteids of the tubercle bacillus."
 John Weinzler, Seattle, Wash.—"The action of diffuse light upon bacillus tuberculosis."
 Dwight M. Lewis, New Haven, Conn.—
 "The morphology of the tubercle bacillus."
 S. Arloing and Paul Courmont, Lyons, France.—"Nouvelles Cultures Homogènes des bacilles de la Tuberculose."
 J. N. Davalos and J. Cartaya, Havana, Cuba.—"Comparative study of the tubercle bacillus of human and of bovine origin."
 A. Rodet, Montpellier, France.—"La Virulence du bacille dans ses rapports avec l'évolution clinique de la tuberculose pulmonaire."
 A. Parker Hitchens, Glen Olden, Pa.—"A chamber in which dried tubercle bacilli may be handled without danger."
 N. Ph. Tendeloo, Holland.—"Channel of infection."
 Julius Bartel, Vienna, Austria.—"Über Eintrittspforten der Tuberkulose."
 G. Kuss, Angicourt, France.—"Sources et voies d'infection de la contagion tuberculeuse."
 S. Bernheim, Paris.—"Les portes d'entrée de la tuberculose."
 S. Bernheim, Paris.—"Rapports de l'air avec la contagion tuberculeuse. Sterilization de l'air."
 Alfred F. Hess, New York.—"A study of the tuberculous contamination of New York City milk."
 Jules Courmont and A. Lesieur, Lyons, France.—"Inoculation transcutanée de la tuberculose."
 Julius Bartel, Vienna.—"Immunisierungsversuche gegen tuberkulose."
 Jules Courmont and A. Lesieur, Lyons.—
 "Contribution à l'immunité dans la tuberculose."
 A. B. Marfan, Paris.—"Immunité de l'homme pour la tuberculose."
 V. Ishigami, Osaka, Japan.—"Tuberculo-toxoidin and immunisation serum."
 Eugene L. Opie, New York.—"The part of enzymes in tuberculous lesions."
 Aldred S. Warthin, Ann Arbor, Mich.—
 "The frequency of healed tuberculosis of the mesenteric glands, with particular reference to the relationship between hyaline deposits in these glands and the healing of tuberculous lesions."
 S. Arloing, Lyons, France.—"De l'infect-

- tion tuberculeuse d'après le criterium anatomo-pathologique."
- John McCrae, Montreal, Canada.—"Analysis of 1,000 consecutive autopsies in Montreal with reference to the incidence of tuberculosis in the different organs."
- A. R. Laundry, Montreal, Canada.—"Incidence of chronic pleurisy in 1,400 autopsies in Montreal, and its relationship to tuberculosis."
- Leon Barnard, Paris.—"Etude anatomique et pathologique des lésions non-folliculaires de la tuberculose."
- R. Tripiér, Lyons.—"De la pneumonie dans le processus de la tuberculose pulmonaire."
- J. Papiot, Lyons.—"Processus anatomique de l'hémorrhagie dans la tuberculose au début."
- Joseph Walsh and C. M. Montgomery, Phila.—"The kidneys in tuberculosis of the lungs."
- D. J. McCarthy, Philadelphia.—"Tuberculosis of the spinal meninges, with a consideration of the mode of infection of these structures."
- J. T. Ullom, Phila.—"The liver in tuberculosis."
- Walter Altschul, Prague, Austria.—"Zur pathologie der Peritoneal-tuberkulose."
- Charles Esmonet, Puy de Dom.—"De la tuberculose expérimentale de testicule."
- O. Amrein, Arosa, Switzerland.—"Periostitis et adipositis tuberculosa toxica multiplex."
- Paul Courmont, Lyons.—"Propriétés humorales des exsudats tuberculeux, valeur, pronostique et thérapeutique."
- Camillo Calleja, Valladolid, Spain.
- Alfred C. Crofton, Chicago.—"An experimental and clinical study of the calcium metabolism in tuberculosis."
- ington, September 29. Subject: "The causes which have led to the past decline in the death rate from Tuberculosis and the light thrown by history on Preventive action for the future."
- Gotthold Pannwitz of Berlin; Philadelphia, September 24. Subject: "Social life and Tuberculosis."
- R. W. Philip. Edinburg; Boston, Oct. 6. Subject: "The Anti-tuberculosis Programme-Co-ordination of Preventive Measures."
- C. H. Spronck, of Utrecht; Boston, October 7.
- Andras Martinez Vargas, of Barcelona; New York, October 9. Subject: "Tuberculosis of the Heart, Blood and Lymph Vessels."
- Theodore Williams, of London; Philadelphia, September 25. Subject: "The Evolution of the treatment of Pulmonary Tuberculosis."
- Dr. Maurice Letulle and M. Augustin Rey. (Joint lecture). Washington, September 30. Subject: "La Lutte Contra la tuberculose dans les grandess villes par l'Habitation; methodes scientifiques modernes pour sa Construction."
- Dr. L. Landousay, of Paris; Baltimore, October 6.
- Dr. A. A. Wladimiroff of St. Petersburg; Washington, September 28. Subject; "Biology of the Bacillus."
- Prof. N. Ph. Tendeloo, of Leiden. Subject: "Collateral Tuberculosis Inflammation."

DR. PETER E. HINES.

The State of North Carolina lost one of her most venerable and honored citizens and the medical profession a most distinguished member when Dr. Peter E. Hines, of Raleigh, N. C., passed away Aug. 14th, after a prolonged and distressing illness of more than a year. Every doctor in North Carolina mourns the loss of one who has been for a great many years most prominent in the councils of the profession, and The Journal but expresses the universal sorrow and sympathy which is felt for his bereaved loved ones.

Dr. Hines had only a few weeks before his death passed his eightieth birthday. A native of Warren county, he graduated from the University of North Carolina and in 1852 received the degree of M. D. from the University of Pennsylvania, after which he also spent some time in study in Paris. In 1853 he became a member of the Medical Society of the State of North Carolina and his early recognition as a leader is shown by his election to the office of first vice-president in 1859. Upon the secession of his native State from the Union Dr. Hines instantly tendered his services, was made

LIST OF SPECIAL LECTURES.

In connection with the Congress a series of special lectures will be delivered in Washington and elsewhere by eminent foreigners. The names of the speakers, and the cities in which they will lecture, follows:

Bernard Bang of Copenhagen, Washington, October 3. Subject: "Studies in Tuberculosis in Domestic Animals and what we may learn regarding Human Tuberculosis."

A. Calmette, Lille, France; Philadelphia, September 26. Subject: "Les nouveaux procedes de diagnostic precoce de la tuberculosis."

Emil Coni of Buenos Ayres, Washington, October 2. Subject: "La Lucha contra Tuberculosis en la Republica Argentina."

Arthur Newsholme of Brighton, Wash-

surgeon of the first regiment of volunteers, and was at the front at Bethel when the first gun was fired. Later he was medical director of all hospitals in and around Petersburg, and in 1865 was given supreme charge of all North Carolina army hospitals with headquarters in Raleigh. Answering the first call of his country to arms he unselfishly and unswervingly stood side by side with his brothers throughout the bloody years of civil strife and both on field and in hospital did valiant, zealous work. As a surgeon he quickly rose to eminence and in this line he was considered one of the most able and distinguished operators in the State. Indeed, he was throughout his career a remarkably successful surgeon and the fact that he was actively engaged in this work until a few years ago shows abundantly how zealously he had kept abreast of the times.

In the society Dr. Hines took high rank, being elected president in 1876, when the meeting was held in Fayetteville. From 1877 to 1878 he was a member of the North Carolina State Board of Health, and in 1878 was elected a member of the Board of Medical Examiners, of which body he was president from 1878 to 1884. During his distinguished career he was also several times made president of the Raleigh Academy of Medicine and of the Wake County Medical Society. He was president of the North Carolina Society, Sons of the Revolution, and an active and enthusiastic member of that society. At the same time when he was stricken with paralysis, more than a year before his death, Dr. Hines was county superintendent of health for Wake county.

No man ever practiced medicine in North Carolina who was more universally loved and respected by all who knew him. Gentle and tender as a woman Dr. Hines' presence in the sick room was like a benediction; skillful and resourceful he was recognized as one of the most eminent practitioners of his day; kind and generous he was open-handed and ready to help those who needed his attention regardless of financial remuneration; upright and honest he was as unyielding as a rock in matters concerning which he considered himself in the right; swift to take offense at personal injury he was as quick to forget. Belonging to that class of doctors to which we of more modern days refer as the "old school" he was the courtly, dignified gentleman of which there is fast coming to remain only a memory.

Our appreciation of the man passes our ability to pronounce fitting eulogy upon his memory. We can only mingle our tears in sorrow at his death with the grief of all who knew him and loved him.

PROHIBITION FROM THE STANDPOINT OF THE PSYCHOLOGIST.

Hugo Munsterberg is always worth listening to, his publications being especially valuable inasmuch as his views generally lead to discussion, which is the surest way of threshing out a subject. In the August number of McClure's Magazine appears a very interesting and novel presentation of the prohibition question from the standpoint of the psychologist. The entrance of a specialist of this branch of science into what has now become a matter of warmest debate, is to be hailed with much rejoicing, for with Munsterberg's debut he brings years of experience and deep thinking, which enable him to present the subject of prohibition in a distinctly new light.

That he should decry prohibition, he says, might be expected from a son of the Fatherland, but to show he is not influenced by birth and association he prefaces his article by clearly stating his personal attitude toward alcohol, which is that amounting to almost total abstinence. Hence, if we can reconcile these two most divergent characteristics of a German professing continence in intoxicating beverages, the paper of Munsterberg's puts a new face on the whole question.

The fundamental evil of American public opinion is that as soon as one side has become the fashion no problem has a fair hearing. No one wants to pose as champion on an unpopular side as in fashion and in social life every one wants to be "in it." This tendency results in an hysterical zigzag movement with no middle way and Munsterberg predicts that if this continue the hysterical movement will not stop until prohibition is proclaimed from every state house between the Atlantic and the Pacific.

This question involves millions of dollars of commercial interests, which is of course vital and which is discussed concisely and clearly in the article, but of greater interest to the writer is the fact that "Prohibition does not prohibit." Munsterberg believes that prohibition, far from lessening the alcohol evil, makes it many times more dangerous. Mild beverages which were hitherto imbibed must now be substituted by stronger drinks which can be hidden and transported easier than liquors less concentrated. Prohibition fostering this substitution also leads to solitary drinking which is particularly dangerous, for as soon as the dislike for solitude is overcome, the drinker knows no limit and no inhibition. Disregard for law is a natural sequence and the public conscience becomes dulled. If legislation against alcohol, why not the same activity against meat, coffee and tea? Many there

are who claim that injurious results follow in their train, and Munsterberg says if this reform of seeming humanitarianism continues "we may finally land in nuts and salad."

The greatest fault of the anti-alcohol enthusiasts is lack of discrimination between abstinence and temperance, and there are certain groups in every State who wish to curtail even the therapeutic use of alcohol by physicians. Every external stimulus leaves its imprint on the human brain and no one should claim that alcohol alone possesses this characteristic function. Rather sarcastically does our writer attack this phase.

We now come to the most novel part of the article, which is that alcohol exercises an inhibitory influence on mind and body. "The feeling of excitement, the greater ease of motor impulse, the feeling of strength and joy, the forgetting of sorrow and pain—are all at bottom the result of inhibition; impulses are let free because the checking centers are inhibited." Inhibition is not synonymous with destruction and only when inhibition assumes such proportions that all moral obligations are paralyzed is it harmful. Alcohol is an inhibitor of great value and if it can relieve us of the "little miseries and of the drudge of life, and thus set free and re-enforce the unchecked enthusiasm for the dominant ideas, if wine can make one forget the frictions and pains and give again the feeling of unity and frictionless power—by all means let us use this helper to civilization.

Alcohol before serious intellectual work is harmful, but for the better enjoyment of society, music, art and recreation in general, alcohol, in moderation be it remembered, is to be recommended. "Better America inspired than America sober," he paraphrases, and he thinks the German, the Frenchman, the Italian, who enjoys his glass of light wine and then wanders joyful and elated to the masterpieces of the opera, serves humanity better than the New Englander who drinks his ice water and sits satisfied at the vaudeville show." Life needs emotional excitement and where alcohol is denied a people, substitutes, far worse and far more pernicious, creep in to help in overcoming the emptiness and monotony of an unstimulated existence.

That this able article of Dr. Munsterberg will receive its mead of criticism goes without saying, for the last word has by no means been spoken. It will be interesting to note the activity which this bomb shell will arouse in the prohibition camp.

CYCLIC VOMITING IN CHILDREN WITH ACETONEMIA.

The excretion of acetone in the urine is not an uncommon phenomenon in children, being seen apart from diabetes, in acute gastro-intestinal disorders, acute infections associated with fever; and especially infantile enteritis. F. v. Muller has called attention to the peculiar tendency of children to acidosis, and his views have been substantiated by Langstein and Ludwig Meyer, after carbohydrate fasting.

Hecker, in the *Muenchener Medizinische Wochenschrift*, 1908, No. 28, reports five cases of cyclic vomiting with acetonemia in children, whose ages ranged from three to eleven years. These cases showed, with slight variations, the following characteristic picture. The children, usually of the male sex, and just past infancy, became periodically ill with severe, uncontrollable vomiting. The vomitus was at first alimentary but later contained mucus, bile and even blood. After a remarkably short period of time, there was a striking loss of weight and strength, the children giving the impression of being severely ill, with sunken eyes, extreme pallor of the face and general weakness. They could hold nothing on their stomach, not even the smallest swallow of water and suffered consequently with torturing thirst. The bowels were either loose or constipated and the abdomens retracted or tympanitic. This distressing illness usually lasted from a half to three days, when the vomiting ceased as it began, suddenly, without rhyme or reason, and in a very short time, apparently with no convalescent period, the children were in the best of health. Especially characteristic was the fact that during the attacks and frequently before the onset, there was the fruity odor of acetone in the breath, while the urine contained acetone, diacetic acid, oxybutyric acid, all of which disappeared with the cessation of vomiting or shortly after the same. The fever was of only moderate intensity.

This disturbance of metabolism was first studied in America and France, but has heretofore received very little attention in Germany. Two of Hecker's cases were brothers which suggests a probable family disposition to the malady.

The disorder has not suffered for lack of theories to explain its occurrence, which briefly enumerated include, true acidosis, as is seen in diabetes (Edsall); arthritic in nature (Rachford, Holt, Valagussa, Comby); hepatogenous (Marpan, Richardiére); expression of appendicitis (Broca); bacterial infection with primary localization in the bowel (Moricant, Beauchant); hysterical (Fischel, Heubuer, Misch), while

Hecker does not commit himself. That it is a disturbance of intermediary metabolism there can be no doubt, though, why this disturbance should arrange itself in cycles remains to be explained.

Depending on each individual observer's view as to the cause, the treatment has been varied. The measures which seem useful will be briefly enumerated. Fischel tried suggestion, taking great pains to prepare for a hypodermoclysis before the little patients' eyes. Absolute withdrawal of food for the first two days has been advocated. Hecker recommends chocolate and dry bread. Alkalies were of assistance in one case. Between the attacks the general health must be built up by hydrotherapeutic and gymnastic measures.

TULANE'S NEW PROFESSOR OF PHYSIOLOGY.

Prof. Gustave Mann, late professor of physiology at Oxford University, England, has accepted the chair of Physiology and Histology of the Medical Department of Tulane University to fill the vacancy left by the retirement of the eminent Dr. Stanford E. Chaille. Dr. Mann was elected to the position several months since. That he is a scientist and an able teacher is attested by the fact that he comes to this country upon the recommendation of such eminent medical men as Drs. Osler and Thompson of Oxford University, and Dr. Paul Ehrlich of Frankfurt-on-the-Main. However, Dr. Mann's reputation precedes him, for he has already become widely known throughout the scientific world because of his valuable researches. Born in 1864, Dr. Mann became a student at Gottingen, Germany, at the age of six, and until he was twenty-one years of age he attended the Gymnasium of this famous town. In 1885 he began his scientific studies in real earnest at the University of Edinburg, Scotland, remaining there ten years, part of the time as assistant professor. In 1894 he won the degree of Doctor of Medicine, and in 1895 he accepted a chair at Oxford University as first assistant to Dr. Gotch, professor of physiology. Dr. Mann has accomplished a vast amount of work and his numerous scientific publications are widely and favorably known. His researches have won him numerous prizes and medals, and at least two text books are evidences of his great abilities. He is an ardent vivisectionist and his defence of the practice has likewise won him renown.

It is believed that Dr. Mann's great abilities will serve to attract men to Tulane from all parts of the Union. It is said that Dr. Mann has the faculty of being able to inspire his students with something of his own en-

thusiasm and thirst for achievement. He teaches them to take nothing for granted; to accept no man's dictum as a fact, but to dig for themselves. It is from the creation of such a scientific attitude with respect to original research that results are expected of which no man can measure the magnitude.

READY TO TREAT HYDROPHOBIA.

We are confident that the usefulness of the Laboratory of the State Health Department has been greatly increased since it has been equipped for the preventive treatment of hydrophobia. Dr. Shore, the efficient director, is taking special interest in the work and nothing of greater import to the whole State has ever been accomplished by the health authorities than the establishment of this method of treatment. Several cases have already been successfully treated since it was first advertised six weeks ago. The equipment is second to none in the country and the beneficent work brings the possibility of the Pasteur treatment within the reach of many who by no means could ever have availed themselves of it before. The treatment is free in cases where it is shown that the parties applying are not able to pay.

SPARTANBURG HOSPITAL AND TRAINING SCHOOL.

One of the best equipped and most up-to-date hospitals in the State of South Carolina is mentioned elsewhere in these pages. Established in 1905 as a private hospital, it has grown very rapidly from the small institution accommodating but twelve patients to its present splendid development of sixty beds—a five-fold increase within so short a time. Truly this is a record of which the directors have just cause to be proud. Located in one of the most progressive and thriving towns of the Piedmont region it has promise of great opportunities for extending its field of usefulness. The building which has been specially designed for hospital purposes, is built of brick and is modern in every respect. It is fitted throughout with gas and electricity, hot and cold water and every facility which could contribute toward the comfort and ease of patients.

The hospital is designed for both surgical and medical cases, but all contagious diseases and insane or incurable patients are excluded. Its staffs of physicians and surgeons are composed of as fine and capable a lot of doctors as are to be found anywhere in the Southern States. All of them are men who have proved themselves by years of valuable and successful experience. Connected with the hospital is a training school for nurses in which young women

may obtain training for the nursing profession as valuable as can be gotten anywhere. A particularly useful feature of the hospital is its readiness to furnish trained nurses whenever demanded.

The Journal takes pleasure in congratulating the Spartanburg Hospital because of its phenomenal success.

LOW MORTALITY IN NEW ORLEANS.

The New Orleans papers are boasting the low mortality rate for that city. The Times-Democrat says the death rate per 1000 for the week ending August 1st, are the lowest ever recorded in New Orleans, being only 10.48 for the white population. These figures show as low a mortality as that of any city in this country, and considering the popular ideas concerning the unhealthfulness of New Orleans they may be looked upon as remarkable. The death rate among negroes was considerably higher, being 16.77 for the same week. This is accounted for by the general poverty, ignorance of sanitary laws and poor hygienic conditions which prevail among the colored population of all cities. The total death rate for both whites and negroes computed on a basis of a white population of 251,000 and a colored population of 90,000, amounted to 12.15 per 1000.

The health authorities of the city of New Orleans are justly proud of these figures and commendation is deserved. The present board with Dr. O'Reilly at its head is proving most efficient.

PLAGUE IN VENEZUELA.

Dr. Charles W. Vogel of the United States Public Health and Marine Hospital Service has but recently returned from Venezuela where he investigated the conditions existing in that country in regard to the bubonic plague. According to his report conditions are deplorable. Venezuelan officials and merchants decline to give information and foreign consuls are likewise reticent. President Castro, although admitting the existence of plague, has ordered the suppression of the true state of affairs. No systematic efforts are being made to stamp out the disease and it will continue indefinitely if measures are not taken to check it.

One obtains a glimpse of the real Castro in his attitude toward the plague. Some one in giving an analysis of his character has shown how utterly selfish are all of his motives. He lives for himself alone and vast amounts of the immense resources of the country are poured into his own individual and already overfilled coffers. If the presence of plague be admitted, quarantine must be established. Such an event must

necessarily result in immense damage to trade and consequently in great personal loss to Castro. Therefore he persistently and with consummate nerve ignores the welfare of his people in order to guard against any deterioration of his own bank account.

AMERICAN PUBLIC HEALTH ASSOCIATION.

North Carolina doctors should feel a peculiar interest in the thirty-sixth annual meeting of the American Public Health Association which was held August 25 to 28, at Winnipeg, Manitoba, because of the fact that a distinguished son of our own State, Dr. R. H. Lewis, of Raleigh, N. C., presided at its sessions and because his address delivered before that body has been widely and favorably commented upon by the press throughout the whole country. Two hundred delegates from Canada, the United States, Mexico and Cuba were registered, and the fact that this association is composed of the most eminent sanitary authorities of all these countries makes their deliberations of great and unusual import.

Besides discussing the water and sewerage question, it was urged that in typhoid fever epidemics the matters of registration of deaths, marriages and births be impressed on municipal officers in order to better the situation adopted by many of the States and provinces.

The most important resolution passed by the association was:

"Resolved, That this association heartily recommends to the American congress the purpose of such legislation as will extend to enlarge the scope and increase the efficiency of the public health and marine hospital service. To this end this association believes the power of the service should be increased; that provision should be made for the retirement under pay of members of the service and that the salaries of said members should be made commensurate with the medical services of the army. The secretary is instructed to send a copy of this resolution to the chairman of the House committee on interstate and foreign commerce and the corresponding committee in the Senate."

Dr. E. C. Levy, of Richmond, Va., was elected secretary of the newly-created section of municipal health officers.

On the last day of the meeting the following officers were elected: Dr. Gardner T. Swarts, of Providence, R. I., president; R. M. Simpson, of Winnipeg, first vice-president; Dr. Jesse Chico, of Mexico, second vice-president; third vice-president, Major Charles F. Mason, U. S. A.; secretary, Dr. Charles O. Probst, Columbus, O.; treasurer,

Dr. Frank W. Wright, New Haven, Conn.

The next annual meeting will be held at Richmond, Va. This city was chosen on the first ballot, with four other cities in nomination.

Editorial News Items.

Dr. T. H. Symmes, a graduate of the South Carolina College of Medicine, and who has been chief of staff of the Roper Hospital, Charleston, S. C., for the past year, has located in Fort Motte, S. C., for the practice of medicine.

Governor Smith, of Georgia, recently appointed 205 delegates to attend the Tuberculosis Congress, which is to be held in Washington, D. C., in September. He selected for his representatives some of the most prominent physicians of that State. In making the appointment he said that this meeting of the Congress would be the first ever held in America, and it would be of very great importance.

Dr. Allard Memminger, dean of the Medical College of South Carolina, has sent in his letter of resignation. His successor will be selected as soon as possible, in order that the important summer work of the deanship may not be interrupted. Dr. Robert Wilson, a prominent member of the faculty, who has been identified with the medical college for a number of years, is the man who will very probably succeed Dr. Memminger. He occupies the chair of the practice of medicine at the college, and is held in very high regard by his fellow physicians.

Dr. Memminger recently stated that many applications had been received from prospective students and that in all probability there would be an attendance at the college next year of some 350 students.

Sheltering Arms Hospital.

The new Sheltering Arms hospital was formally opened at Hansford, West Virginia, on Wednesday, July 15th. Addresses were made by the Rt. Rev. Geo. W. Peterkin, Bishop of West Virginia; Archdeacon B. M. Spur of West Virginia, and President Stevens, of the C. & O. Railroad. Bishop Peterkin spoke of the successful and valuable work that it had accomplished in the past, beginning nineteen years ago when it was designed to take care of the sick and injured miners, and how the work had grown. The purpose of the work, he said, was to, in a charitable way, take care of the sick and maimed of all classes and all denominations.

The hospital adjoins the old Sheltering Arms, which it is understood, will be torn down. The new hospital is very beautiful, situated some seventy-five feet above the Kanawah River. The white arches of its porches and the red tiling of its tower and roofs add much to the picturesque scene. The new buildings have a capacity of one hundred patients and are built of solid concrete. They contain nine wards and many private rooms and are thoroughly equipped with modern appliances.

Physicians, Surgeons and nurses have been provided to care for medical and surgical cases by the most approved methods.

The staff consists of Dr. J. Ross Hunter, superintendent; Dr. Henry G. Foushee, house physician; Dr. Fred J. McComb, externe; and Miss Mary J. Perry, superintendent of nurses.

A Medical Library in Nashville, Tenn.

A medical library, consisting of over four thousand volumes, will, in a very short time, be opened in Nashville. Three thousand volumes were donated by the late Dr. Richard Douglas, and the other 1,400 volumes were obtained by Dr. M. M. Cullom. The meetings of the Nashville Academy of Medicine will hereafter be held in this library, which is in the Carnegie Library Building, and the weekly meetings of the scientific societies will also be held in the library, thus making it a medical centre for the city. Arrangements are being made for a series of popular lectures at the library during the winter. The committee in charge of the library work consists of Dr. W. D. Haggard, chairman; Dr. M. M. Cullom, Dr. R. E. Fort, and Dr. Holland M. Tigert.

Sanitary and Tuberculosis Society of Atlanta, Ga.

A meeting of this society was held on the evening of July 31st. The new constitution was read and adopted. A committee composed of Dr. J. L. Campbell, Dr. Claude Smith, and Dr. E. C. Thrash, was appointed to present to the senate resolutions on the needs of a State sanatorium for the treatment of tuberculosis patients. Dr. Thrash read a paper entitled What the State Can Do to Prevent Tuberculosis, and Dr. Smith read a paper entitled What the Municipality Can Do to Prevent Tuberculosis.

New Louisville Medical School After Consolidation.

The committee appointed for the purpose of arranging the faculty of the new Medical School of Louisville have named the following heads for the institutions: Dr. J. M. Bodine, of the University of Louis-

ville, President; Dr. J. B. Marvin, of the University, Vice-President; Dr. T. C. Evans, of the University of Louisville, Dean; Dr. P. F. Barbour, of the Louisville and Hospital College of Medicine, Secretary. The executive committee of the Medical Department of the University of Louisville will be as follows: Drs. Clint W. Kelly, L. S. McMurtry, W. H. Wathen and H. Horace Grant. The complete faculty of the Medical University will number about 110. The major faculty, numbering about sixty-five, was named and comprises the following: Drs. William Bailey, J. M. Bodine, Thos. C. Evans, William E. Grant, Henry A. Cottell, Leon L. Solomon, Virgil E. Simpson, Henry Goodman, Edward R. Palmer, Joseph B. Marvin, John G. Cecil, Richard B. Gilbert, Samuel E. Woody, William O. Roberts, Thomas L. Butler, J. Garland Sherrill, Argus D. Willmoth, Turner Anderson, Louis Frank, William B. Doherty, Henry E. Tuley, J. Morrison Ray, Adolph O. Pfungst, Isidore Blum, Charles W. Hibbitt, Bernard Asnan, Isaac Lederman, Lewis S. McMurtry, Frank C. Wilson, Samuel G. Dabney, John Edwin Hays, H. Horace Grant, Philip F. Barbour, E. Speidel, George A. Hendon, Walter F. Boggess, Ezra Offutt Witherspoon, William H. Wathen, Martin F. Coomes, Henry Orendorf, Fouché W. Samuel, William A. Jenkins, John R. Wathen, George B. Jenkins, Arthur J. Boyd, Oscar G. Dilly, Ellis S. Allen, Curran Pope, Granville S. Hanes, Gaylard Hall, C. W. Kelly, H. B. Ritter, Wm. Cheatham, Wm. C. Dugan, Harris Kelly, Irvin Abell, B. F. Zimmerman, H. N. Leavell, S. J. Myers, B. J. O'Connor, Ellis Duncan.

Cocaine Selling Condemned.

At a recent meeting of the Chattanooga and Hamilton Co. Tenn. Medical Society, a resolution condemning the irregular and illegal selling of cocaine, morphine and other narcotics, which had been previously introduced by Dr. J. R. Steele, was passed, and is now a part of the minutes of the society's proceedings.

Promiscuous sales of narcotics, by different druggists, were discussed by members of the society, and it was the sentiment of the meeting that the druggists who thus violated the law should be severely punished.

New Buildings at the Insane Hospital.

The State Hospital Commission of North Carolina, is to expend \$500,000, within the next five years, for the enlargement and better equipment of the State Hospitals for the Insane. They have decided to erect buildings at Morganton for all white insane

tuberculosis patients—separate buildings for men and women, to accommodate 25 patients each. They have also decided to establish similar equipment for negroes at the colored hospital in Goldsboro, N. C.

The commission at its recent meeting, did not consider favorably the proposition to enlarge the Morganton institution. It is already much larger than the Central Hospital at Raleigh, and the Commission thinks that extensions ought to be made at the Raleigh institution until it is on an equal basis with that at Morganton.

Fee System and "Quacks."

At the August meeting of the Chattanooga and Hamilton Co. Tenn. Medical Association questions of action regarding quack doctors and the fee system were thoroughly discussed. The fee system that has been in vogue among practitioners in that city for a number of years, was adopted with minor changes. It was unanimously decided that the fees within the city limits be the same as have been formerly charged. Considerable discussion was occasioned by a movement to reach the quack doctors of that city and county, through a resolution to see that all physicians in the county were registered, but after it was shown that the motion would not serve the purpose for which it was intended, it was finally tabled.

Southside Medical Association.

The twenty-second meeting of the Southside Medical Association convened at Courtland, Va., Sept. 1st. Dr. L. L. Lofton, of Emporia, president of the association, presided, and after calling the meeting to order, delivered an eloquent and impressive address, in which he urged upon the members the importance of attending the meetings of the association.

The following papers were read during the afternoon session: "Abortion, with Especial Reference to Treatment," by Dr. R. L. Raiford, Conley, Va.; "Post Partum Hemorrhage and Its Treatment," by Dr. E. R. Hart, Suffolk, Va.; "Application of the Forceps—A Plea against their too Frequent Use," by Dr. Burnley Lankford, of Norfolk; "Uterine Displacements," by Dr. Frank H. Hancock, of Norfolk; "Relation of Pathology to Modern Surgery," by Dr. J. Shelton Horsley, of Richmond; "Pruritis," by Dr. Thomas W. Murrell, of Richmond; "Tuberculosis of Caecum," by Dr. R. O. Rogers, of Richmond.

At the night session Dr. Ennion G. Williams, State Health Commissioner, of Richmond, delivered an address to the association and public upon the subject of public health. Other important papers were read, and at the conclusion a banquet was given at the Courtland Hotel.

Epileptic Colony.

The General State Hospital Board of Virginia has determined not to begin work on the proposed epileptic colony in Amherst county, opposite the city of Lynchburg. The General Assembly, eighteen months hence, will be asked for the right to locate the colony outside the county of Amherst, as is provided for in the act, which makes provision for \$30,000 to be expended in starting the hospital.

Yellow Fever in Mexico.

Dr. John N. Thomas, traveling inspector of the United States Public Health and Marine Hospital Service, reports that there is yellow fever at several points in Mexico.

He says that every precaution has been taken by the Federal health authorities to prevent the spread of the disease to the United States and that there is really no danger of the fever breaking out in this country.

Dr. Thomas says that Vera Cruz is the principal seaport city where there is fever, but that there is none at Tampico. The infected points have been quarantined and Dr. Leroy Stone of the United States Public Health and Marine Hospital Service has been stationed in Tampico in order to watch health conditions there.

Although there have been no signs of yellow fever breaking out at Tampico this precautionary measure was regarded as necessary on account of the heavy traffic between Tampico and the gulf ports of the United States.

Dr. J. M. Buchanan of Meridian, Miss., superintendent of the East Mississippi Insane Hospital, reports the completion of the new building for white patients authorized at the last legislative session of that State. This structure has been set aside as a ward for women, and it will accomodate about fifty patients.

This hospital has now on its register about 500 patients.

Dr. C. Jefferson Miller, of New Orleans, is spending several months in Europe.

Dr. M. J. McFadden, of Clinton, S. C., has located in Cross Hill, S. C., for the practice of medicine.

Smallpox in Spottsylvania County, Va.

Smallpox still continues to prevail in Spottsylvania county, Virginia. A strict quarantine has been established and it is predicted that the epidemic will soon subside.

Dr. Frank G. Simmons, of Kentucky, formerly president of the Southern Kentucky Medical Association, has located in Richmond, Va.

The Tuscaloosa (Ala.) County Medical Society held its regular meeting in the Council Chamber of the City Hall Aug. 5, the meeting being called to order by Dr. James T. Searcy. Papers were read by Dr. W. D. Patton, and Dr. Joseph Leland made an interesting talk on inguinal hernia, a case operated on by local anesthesia. Dr. George A. Searcy handed in his resignation as a member of the Board of Health. The vacancy was not filled at this meeting.

Dr. E. D. Friedrichs, of New Orleans, is visiting the hospitals and clinics of Glasgow, London, Paris, Berlin and Vienna. He will spend several months in Europe.

In Jamaica tuberculosis disease is extremely uncommon among the whites. When it occurs in negroes, they quickly succumb to it.

Gainesville's New Sanitarium.

A modern sanitarium was formally opened August 11th in Gainesville, Ga. Dr. C. F. Marsh, at the head of a stock company, recently purchased the buildings of the National Odd Fellow's Home in that city and have established an up-to-date institution for the treatment of both surgical and medical cases.

Dr. Marsh has made many improvements in the sanitarium since taking charge, and this institution, which has always been one of the leading in the State of its kind, will now take rank as a national resort in every term the word implies. There is no equipment of a modern type more perfect than here, and the promoters expect to make quite a reputation for the place and for Gainesville.

Dairies Closed In Suffolk, Va.

A number of dairies around the town of Suffolk, Va., have been closed as a result of inspection of them by Assistant Dairy and Food Commissioner Ben Purcell. The condition of these dairies was brought to the attention of the Dairy and Food Departments by Dr. Emmon G. Williams, Health Commissioner for the State of Virginia, as a result of his investigation into the typhoid fever situation in and around Suffolk. Numbers of cases were attributed to the dairies which are said to be in an awful condition.

Mortality Lower in Birmingham.

Records show a decrease in the mortality for the first six months of 1908 in Birmingham, Ala. There was a decrease of ninety-four deaths over the corresponding period of 1907. The fact that the decrease was most prominent in the case of deaths from violence is attributed by the city authorities to the good influence of prohibition.

Pan-American Medical Congress.

The fifth session of the Pan-American Medical Congress which was held in Guatemala City, Guatemala, August 6th to 13th, was attended by representatives from practically all the American republics. The Congress was cordially entertained by the republic of Guatemala which had made great preparations for the event. The next Congress will be held in Lima, Peru, in August, 1911.

Dr. Geo. M. Niles has located in Atlanta, Ga., where he will engage in the practice of his profession. He has procured an elegant suite of offices in the Candler Building, Rooms 408-9.

Dr. J. McF. Gaston, of Atlanta, is now in New York where he is doing special clinical work preparatory to taking up the work of Medical Missionary in North China. He was recently appointed by the Foreign Mission Board of the Southern Baptist Convention and within a short time will leave for his new field.

Dr. Jno. Miller Moore, of Rock Hill, during the past 18 years a surgeon in the Medical Corps of the United States Navy, has been detained at the Villefrad Asylum in Paris, France, on account of his mental condition. He left the battle-ship *Kansas* at San Francisco and but recently arrived in Paris. Experts, including Dr. Babcock, of Columbia, who happened to be in Paris at the time and who knows Dr. Moore, agreed that it would be unsafe to liberate him. Consul General Mason has been busily engaged in his endeavors to find some friend or relative who would sign a bond for Dr. Moore's personal safety and conduct him from France.

Dr. William M. Johnson, of Johnsonville, Tenn., was recently elected president of the Wayne County Medical Society. Doctor Johnson is the oldest practicing physician in that county, and has been at Johnsonville fifty-four years.

Yellow Fever.

The State of Texas, through the health

department, has established a rigid yellow fever quarantine against Mexico, an outcome of a recent tour of the republic by Dr. J. F. Eaves, of the State Health Department. Dr. Eaves represented yellow fever to exist at Vera Cruz, La Guana and other points, and declared the disease had proven fatal in a number of instances.

Tuberculosis.

The Georgia legislature accomplished several notable objects during its recent session, possibly the most worthy of which was the establishment of a State sanitarium for the treatment of tuberculosis. While the sum appropriated—twenty-five thousand dollars—is inadequate for any very great work, it is a beginning and lays the foundation for a great institution it is believed public sentiment will ultimately demand.

The apparent indifference of people generally to the efforts being directed toward the amelioration of suffering and distress occasioned by the prevalence of this merciless disease is one of the most unaccountable phases of our national progress. Medical science has demonstrated the fact that this disease is not only preventable but in certain stages curable; it has likewise demonstrated that unless certain well defined precautions are taken it will not only increase but will inevitably and speedily carry its victims to the grave. Notwithstanding these facts we go on from day to day neglecting all and singly the warnings of science, and the relentless plague continues to reap a harvest of lives every year.

Gastonia, N. C., to Have a Hospital.

We understand that a deal has practically been closed by which the old Gastonia Inn building, in the rear of the Falls House, has been acquired by a stock company of several leading business men and physicians to be converted into a hospital.

Dr. Stowe's Assignment.

An important assignment has been given to Dr. Leroy Stowe of the United Marine Hospital Service. He will be placed in charge of the inspection and quarantine service at Tempico, Mexico, the port of second importance in the Southern Republic.

Opening of the North Carolina Medical College.

The North Carolina Medical College opened September 9th, with most encouraging prospects for a successful term of work. During the term of 1907-'08 the school had for the first time occupied the new college building which is located in

the heart of the city at the corner of Church and Sixth streets, and situated most conveniently to all the hospitals of which there are now five in Charlotte. The building had been designed especially to meet the needs of a modern up-to-date medical school, and the past session demonstrated the fact that it is most admirably adapted for the purpose for which it was intended. Students found it comfortable, clean and well equipped. The professors were prompt in meeting the classes and the students were earnest and enthusiastic in their studies.

Upon the record of the past year the new term begins with a larger number of students in attendance than ever before. Forty new men have entered, thus making the largest first-year class in the history of the college. Practically all the students of the former First, Second and Third year classes have returned and together with several additions to these the total number registered has already passed the one hundred mark, and within a few days the number will doubtless reach one hundred and twenty-five.

The present session begins with an enlarged and strengthened faculty, several new instructors and assistants having been added, and a few changes in the teaching of subjects have been made. Dr. J. P. Mattheson will teach hygiene; Dr. C. N. Peeler and Professor Witherbee will teach *Materia Medica*, Dr. Peeler having charge of the second year class, and Dr. Witherbee will teach the third year men.

Dr. C. A. Misenheimer has been elected Professor of Orthopedic Surgery; Dr. P. M. King, Professor of Minor Surgery; Dr. Wm. Allen, Professor of Bacteriology. Drs. E. C. Bovette, Myers Hunter and John Donnelly have been elected assistants in Medicine, Obstetrics and Physical Diagnosis. Messrs. Hamilton McKay, Benj. Team, S. A. Harding and C. M. Lentz, are assistants in Anatomy, Chemistry, Bacteriology and Genito-Urinary diseases.

All the members of the faculty and the students assembled September 9th, in the splendid amphitheatre of the college where Rev. Wm. Duncan, pastor of the First A. R. P. Church delivered the opening address to the students. His words were full of wise counsel and did not fail to impress his hearers. Several members of the faculty also took occasion to say a few words to the students.

Work has now begun in earnest and the session of 1908-'09 bids fair to be the best in the history of the school.

Marriages.

Dr. W. P. Patten.—On Thursday evening, at 8 o'clock, July 20th, Dr. W. P. Patten, of Milltown, Ga., was married to Miss Lillian E. Baker, of Atlanta, Ga. The ceremony was performed at the bride's home by Dr. J. J. Bennett. Dr. and Mrs. Patten left immediately for their home.

Dr. Patten is a graduate of the Atlanta Medical College, class 1889. He has lived in Milltown for a number of years, and enjoys a very nice practice there.

Dr. Laurie Arnold.—A very beautiful home wedding was celebrated on Wednesday, August 6th, at Oak Ridge, N. C., at the home of Mr. W. D. Whitaker, when his daughter, Miss Lottie, was married to Dr. Laurie Arnold, of Lillington, N. C.

Dr. Arnold is a graduate of the North Carolina Medical College, Charlotte, N. C., class 1905. He is a promising young doctor and enjoys a good practice at Lillington, where he has been located since his graduation. The Journal extends hearty congratulations.

Dr. W. H. Lewis.—The Methodist parsonage, at Natchez, Miss., was the scene of a very pretty marriage ceremony on Thursday morning, August 6th, Dr. W. H. Lewis and Miss Pearl East, both of Natchez, being the contracting parties.

Dr. Solon Wilson, formerly of Live Oak, Fla., but now of Lakeland, Fla., was married to Mrs. Evaline Hoagstrum, of Orlando, Fla., on the 19th of August, at the Jefferson Hotel.

Dr. F. C. Manoe was married to Miss Elizabeth Kendrick, of Sharon, Ga., on August 30th. In a short time he will locate in Atlanta, where he expects to make his home and practice his profession.

Dr. Thomas H. Massey, of Hampton, Va., and Miss Elizabeth Hardwick, of Kin-sale, Westmoreland county, eloped recently to Elizabeth City, N. C., and were united in marriage. The marriage was kept a secret until the bride returned to her home and made the announcement.

Deaths.

Dr. Alex. C. Latour, Jr., of Welch, La. died at Saint Patrick's Sanitarium, Lake Charles, La., on the night of August 5th. He was a graduate of the University of Louisville, Louisville, Ky., class 1892.

Dr. Bennett Franklin Godfrey. The untimely death of Dr. Bennett Franklin God-

frey, which occurred on Aug. 14th, at the home of Mr. Frank Martin, Laurens, S. C., is a distinct loss to that community, in which he has practiced for several years. His death was from an internal hemorrhage occasioned by a runaway accident which occurred just 20 hours before his death. Dr. Godfrey was a native of Laurens county, S. C., age 35 years. He was a graduate of the Chattanooga Medical College, Chattanooga, Tenn., class 1897. He was widely connected in his county and had quite an extensive practice.

Dr. H. H. Sayers, of Northfork, W. Va., was shot and killed Sept. 3, by W. Wesley Wilkes on a train stading at Keystone station. There had been bad blood between the two men for some time and it is said the physician had threatened to kill Wilkes on sight. When they met at Keystone depot Sayers caught Wilkes in the throat and began beating him in the face. Wilkes managed to get his revolver out of his grip and shoot Sayers three times, death resulting in a few minutes.

Dr. J. T. Iron, of Paris, Tenn., died at his home in August 23rd. He was a very prominent citizen of Paris, where he had practiced medicine for many years. He had been in failing health for several months.

Dr. Edward H. Johnson, of Troy, Ala., died August 27th, from injuries caused by a railway accident. He had started to visit a patient on foot and reached the crossing just as the fast Coast Line train from Montgomery was approaching. In some way he stumbled and fell on the track, and before he could get up the engine caught his foot, crushing it and throwing him against the end of the crosstie. The train carried him back to the station, where medical aid had been summoned. He was found to be in a very critical condition and was immediately carried to his home, where everything possible was done for his relief, but he succumbed to his injuries about an hour later.

Dr. Johnson was a very genial gentleman and highly respected citizen of Troy, where he had lived the greater part of his life, having been born in that town on July 27, 1845. After his graduation from Washington University School of Medicine, Baltimore, Md., in 1869 he went to Rutledge, Ala., where he practiced for several years, but in 1888 he returned to Troy.

Dr. W. R. Bishop.—In the death of Dr. W. R. Bishop, of Talladega, Ala., which occurred on August 4th, the medical profession of that state and vicinity has lost a very brilliant and valuable member.

Dr. Bishop was a native of Talladega, was born in that city on February 4, 1873, and practiced his profession there for a number of years. He received his primary education in the Talladega schools and 1893 graduated from the Alabama Polytechnic Institute at Auburn. In 1895 he graduated from the medical department of the Tulane University of New Orleans, La., and in 1896 he took a course in the New York Post Graduate Medical College and in 1900 at New York Polytechnic Institute. He was a member of his State and county medical societies, and had served as secretary and president of the latter organization.

Dr. Ernest A. White.—The friends of Dr. Ernest A. White, of New Orleans, La., on August 18th, were very much grieved to learn that he had committed suicide, at the home of his parents 1323 Webster St. Dr. White was a very favorably known young physician of his city. For some time past he had been suffering from despondency occasioned by recurring attacks of dyspepsia, and also a severe affliction of the ear, which caused him considerable suffering.

Dr. White was a native of New Orleans, was born in that city thirty-six years ago. He was a graduate of the medical department of Tulane University, of New Orleans, and also graduated in 1892 from the Hospital College of Medicine in Louisville, Ky.

Dr. E. C. McEachern.—The death of Dr. E. C. McEachern, which occurred at Asheville, N. C., on Sunday, the 16th of August, was a great shock to his many friends throughout the State. Dr. McEachern had practiced his profession in Rockingham, N. C., for a number of years, and was a very highly esteemed citizen of that community. He was a graduate of the University of Maryland School of Medicine, Baltimore, Md., class 1901.

Dr. Julian A. Smith, one of Durham's oldest physicians, and one of the most highly esteemed citizens, died on August 14th, at Watts' Hospital, Durham, N. C. Dr. Smith was reared in Sampson county, N. C. He graduated at the New York University, Medical Department, New York City, in 1883. Just twenty-three years ago he moved to Durham, where he made his home and built up a very large practice. He had been in declining health for several months, and all hope of his recovery had been given up several days before his death. He was 64 years of age.

Dr. Olof Oscar Robertson, died at his home, near Atlanta, Ga., on August 4th. Dr. Robertson came to this country from

Sweden, in 1865, and located in Atlanta, where he took up the study of medicine and has since practiced his profession. He was sixty-two years of age.

Dr. Frank B. Glenn, formerly of Richmond, Va., died on the 12th of August, at St. Vincent's Hospital, Norfolk, Va. He had just been operated upon for appendicitis. Dr. Glenn was a young physician with a very bright future before him. He graduated from the Medical College of Virginia, Richmond, Va., in 1907, and went to Norfolk to practice medicine only a few months ago.

Dr. H. B. McMaster, of Waynesboro, Ga., died at the Mimosa Hotel, Tryon, N. C., on August 20th. Dr. McMaster was a native of Winnsboro, S. C. He graduated from the Kentucky School of Medicine in 1887. He located in Waynesboro, Ga., where he practiced his profession, and was a very prominent physician of that State.

Dr. W. H. Timmerman.—The death of Dr. W. H. Timmerman who passed away, aged 76½ years, at his home in Batesburg, S. C., July 14th, is a distinct loss to the medical profession of his State. A graduate of the Medical College of the State of South Carolina, class 1854, Dr. Timmerman practiced medicine in Edgefield county until 1884 when he retired from active practice. He served as commissioned officer in the Confederate army, rising from the rank of private to that of captain. He was a highly successful farmer and was repeatedly elected to the General Assembly of his State, serving in both the House of Representatives and Senate. He was made president *pro tempore* of the latter body in 1892 and also lieutenant governor to fill out the unexpired term of Lieut.-Gov. Eugene B. Gray. In 1894 he was elected lieutenant-governor, which place he held for two years. Dr. Timmerman was also a member of the Constitutional Convention in 1895, and in 1896 and again in 1898 he was elected State Treasurer.

As a financier, Dr. Timmerman was called upon, not only to act in the public capacity of State Treasurer, but as a private citizen he was the chief executive officer of several banks.

In all the relations of life, public and private, Dr. Timmerman was guided by a high sense of duty and honor. He was always mindful of the rights of others, and by his kindly interest, faithful service and fine example he commanded the respect and won the esteem of a large circle of acquaintances and friends. His prominence in the affairs of his State was not due to self-seeking, or to desire for posi-

tion or notoriety, but resulted from the recognition of his merit as a man and a citizen by those with whom he long associated and among whom he lived.

Review of Southern Medical Literature

Richmond Journal of Practice, June, 1907.

The Cancer Problem.—Dr. G. E. Crile draws up the following conclusions: Cancer is widely distributed in nature; is slightly, if at all, communicable; is not yet proved to be increasing or hereditary; and is rarely transplantable. Its biological characteristic is the power of endless division of cells. The natural prognosis is death. Frequently there are well-defined predisposing causes and precancer states. The precancer stage is the preventable or curable stage. It is vastly better to prevent a cancer than to cure it. No specific therapeutic measure exists; the knife is still the most reliable means of treatment. In its beginning cancer is always local and is curable by complete excision. The chances of cure diminish in inverse geometric ratio to the lapse of time since its inception. There is evidence that a reliable blood test for cancer may be established; and there is a possibility of utilizing for cure the immunity principle through transfusion of blood.

If there is in many cases a recognizable and curable precancer stage, if the disease in its incipency is local and curable by excision, if the magnitude of the necessary operation increases in a direct geometric ratio and the chance for cure diminishes in a reverse geometric ratio with the lapse of time since inception, what is the duty of the profession, especially in its organized function and in its altruistic aim, toward the hundreds of thousands of fellow creatures who now, without suspicion of the dreadful truth, are in the precancer or early curable stage of cancer? What is the duty of the profession towards hundreds of thousands who will be stricken next year and each year to follow? This duty is to undertake a campaign of cancer education. The public is entitled to receive from the profession all the enlightenment required for self-preservation.

Memphis Medical Monthly, July, 1908.

Administration of Quinine by Inunctions.—Dr. Geo. E. Petty says that in the more severe forms of pernicious malaria diseases, if quinine is administered by the stomach, rectum, or even hypodermatically, the absorbents may be so deranged that they will not take it up, but so long as the blood is circulating, if one of the soluble

salts of quinine be dissolved in glycerine and applied to the skin it will pass into the blood, the skin acting merely as a dialyzing membrane. This is essentially a chemical process, and its success does not depend upon the activity of the secretions or, in fact, of any of the vital functions except the circulation of the blood. A patient can be quinized as promptly and as thoroughly by inunction with this glycerole of quinine as by any other mode of administration, and it is certainly much to be preferred to the hypodermatic method. This mode of administration of quinine is suitable for either adults or children; but in estimating the dose allowance should be made for waste, because of contact with the clothing before all the compound has been taken up. Gentle friction should be used for a few minutes after applying the remedy, as this stimulation of the capillary circulation will hasten the taking up of the glycerole. A convenient form of ordering this compound is: Quinine muriate, 3ii, Glycerine (warm), 3vi. M. ft. sol. Sig.: use 3ii as inunction for adult.

Medical Evolution.—Dr. H. Hawkins says that the religious press is the favorite advertising medium of patent cures, and the strongest testimonials of the nostrum vendor are signed by ministers. From time immemorial the preacher and his family have received the services of the profession without money or praise, yet few physicians have not realized that the most injurious criticism to be met is from the man whose visits are for the purpose of ministering to the spiritual needs of the patient and family.

That heretical mixture of pseudo-philosophy, superstition and religious vagaries called Christian Science, which is neither Christian nor scientific, grows and prospers, not because Mrs. Eddy has a message to deliver which the world needs; but because, like the priests of old, its fanatical followers seek to re-establish religious authority with the credulous by claims of supernatural healing power. The sluggish opposition of the laity still hampers and impedes. The paramount importance of personal and civic hygiene in the prevention of disease has been demonstrated again and again, yet positively known and preventable causes of disease are allowed to exist and claim their annual harvest of lives in our most enlightened communities, because the general public opposes the efforts of the medical profession with the old "let well enough alone" policy. For illustration: typhoid fever, malaria, tuberculosis and yellow fever are a few of the many preventable diseases allowed to flourish in spite of this knowledge.

The Mobile Medical and Surgical Journal,
July, 1908.

The Social Aspect of Tuberculosis.—

Dr. A. Knopf says that there are four ways by which the infection most commonly takes place. First, by inhalation. If a consumptive expectorates carelessly, he need not be confined to his bed to do harm. He may be up and about and if he is a good expectorator he can disseminate some seven billion bacilli in twenty-four hours. When this expectoration is allowed to dry and to pulverize, we are exposed to the inhalation of this tuberculosis dust, and if we are below par, that is, are in a susceptible condition, just recovering from a disease, overworked, underfed, or badly housed, we are susceptible, and by inhaling these germs we may get tuberculosis. That is one of the most frequent of all causes of communication.

The next most frequent mode is ingestion of the bacillus, taking some food, such as meat or milk from a tuberculous animal.

A third source is inoculation.

There is a fourth source not so frequent and not often thought of by my colleagues in the medical profession; that is drop infection, coming from droplets. You have heard people say, this person is all right, he has only a dry cough. There is no such thing as a dry cough. If you will take a polished mirror and cough against it you will see little droplets form on the mirror, and bacilli may be contained in these particles of saliva, and the spray may reach others in the room.

Amebiasis: The Use of Formalin and Copper Phenol-Sulphonate in the Treatment.—

Dr. J. L. Jelks, the author, in the treatment, first refers to the importance of selecting a proper diet for these cases, and then refers to the use of formalin and boric acid solution and formalin and copper phenol-sulphonate solution in high irrigations through a recurrent tube which he has devised specially for that purpose. He also refers to treatments through the sigmoidoscope with silver nitrate followed by the installation of boric acid and aristol, or Iodoform and bismuth sub-nitrate and olive oil.

The author concludes that the washing away of necrotic material and debris, as also the infecting agents is an important matter in the treatment of these cases by irrigations, and says these stimulate the vaso-motor supply, relieve passive congestion and stasis, increase the amount of fresh blood to the inflamed structures, and perhaps aid in the development of antitoxic bodies.

The Southern Clinic, July, 1908.

The Auto-Protective Resources of the Body—A New Foundation for Scientific Therapeutics.—By Dr. C. E. De M. Sajous.

New Orleans Medical and Surgical Journal, July, 1908.

Pathology of Tuberculosis.—Dr. O. L. Pothier believes that the dissemination of the tubercular infection after it has first entered through the point of primary invasion, takes place by several ways. The blood may be the carrier by which the bacilli are spread widely through the body. The lymphatic circulation may also disseminate the infection. We find also tubercular infection taking place in certain organs from translation of certain fluids, such for instance as the intestinal infection from ingestion of tubercular sputum, or the infection of the bladder from a tubercular kidney. The tubercular infection may also spread by continuity and contiguity of tissue.

The sites of tuberculosis are varied, but certain tissues appear more vulnerable. The lung is more frequently affected than any other organ of the body. Next in frequency are the joints, bones, and lymph nodes, then tuberculosis of the mucous membrane other than the lung, tuberculosis of the serous membranes, tuberculosis of the skin, the spleen, the liver, the brain, the generative and urinary organs, the heart and voluntary muscles.

From the above, we see that tuberculosis affects all of the organs of the body in the human subject, and it may be said that the same is true in the lower animals. From statistics of autopsies, all authors concur in the opinion that tubercular infection is found in about 85% of bodies at autopsies and is probably the most frequent and widespread disease of the human race.

Tuberculosis of the Testicle.—Dr. S. P. Delaup says that according to Davis the first symptom is usually a feeling of weight and discomfort in the testicle, some tenderness of the part affected, seldom developing into pain until the disease has lasted quite a considerable time. The pain then felt is dull, aching; may extend up the cord to the groin or even be felt in the back. These sensations are usually intermittent, disappear on rest to return on exercise. The first sign of the disease is the appearance of a hard nodule at the lower part of the epididymis usually of slow but progressive growth. This nodular induration later involves the entire epididymis, then the vas for a varying distance, and, lastly, the testicle itself. A urethral discharge usually

exists, varying in quantity and character, usually small in amount, thin and milky, but may be profuse, purulent, or bloody. This discharge promptly disappears after removal of the tuberculous nodule. The vesical symptoms are usually late in appearing and are not urgent.

If the local lesion is not removed early the disease involves the entire epididymis, the nodules soften, break down, fluctuate, and the purulent contents may burrow into the tissue of the scrotum, or more often open spontaneously by one or more sinuses, which may discharge for months.

Maryland Medical Journal, July, 1908.

Social Prophylaxis.—Dr. P. A. Marrow says that the significance of disease in general is measured by its effects upon the health and life of the individual. We estimate the gravity or benignity of disease from this standpoint. But social diseases constitute an incomparably greater danger to society than to the individual. This social danger comes from the fact that these diseases specifically affect that function of the body to which the life of the human race is entrusted; they poison the very sources of life, rendering the productive energy null and void, or so vitiating the processes of nutrition as to produce a race of weaklings, stamped with mental and physical inferiority and unfit for the struggle of life. The fact that these diseases are one of the most potent factors in the causation of blindness, of epilepsy, of idiocy, of insanity, etc., renders their prevention not only a matter of economic and sanitary importance, but imposes a special obligation on the State to safeguard the family from their invasion, and thus prevent the vast mass of misery and disease engendered in the descendants. But the State, through its constituted authorities, the sanitary officials, does not lift a finger toward their prevention or control. It is true that both State and private charities contribute most generously to the amelioration of the miseries of these unfortunates after the irreparable harm has been suffered. Millions of dollars are contributed to the support of the blind, the defectives, the epileptics, the paretics, but not a dollar for the dissemination of that saving knowledge which might prevent. Miss Helen Keller has well said, "When the promises of the future are fulfilled and we rightly understand our bodies and our responsibilities toward unborn generations, the institutions for defectives which are now our pride will become terrible monuments to our ignorance and the needless misery that we once endured."

Gaillard's Southern Medicine, June, 1908.

Cataphoresis.—Dr. M. W. Peyser says that metallic interstitial diffusion is the name given to phoresis of metallic electrodes. The metals used are mercury, zinc, copper and tin, mercury being employed in the form of an amalgam with the other metals or with gold. This process possesses bactericidal properties in addition to the others mentioned in discussion of electrolysis; and the irons are propelled for some distance into the tissues dependent upon the electromotive force, quantity of current, time of application, size of electrode and amount exposed, area and nature of tissue, etc.

The diffusion of metals is one of the most valuable agents in the possession of the electrotherapist; and the process has been so far developed that Massey and others now employ it in the treatment of cancer and other tumors to the almost total exclusion of the recognized methods. In the treatment of cancer of the breast, Massey uses amalgamated gold electrodes, the mercury leaving the gold, which is but little, if any, attacked, and radiating in dark lines through the growth toward the opposite pole. In some instances, he uses amalgamated zinc electrodes.

His conclusions are as follows: "1. Massive diffusion of nascent mercury salts within a growth or cavity by electrification, constitutes a novel therapeutic procedure of great value in the destruction of foci of malignant or non-malignant germ growths when the growths are so situated as to allow penetration and drainage. 2. Phoric destruction of the germs of primary cancerous growth in situ including outlying colonies and so-called roots of prolongation, permits preservation of unaffected portions of the organ of situation; and offers greater security against recurrence than efforts to remove living malignant growths by cutting operations. 3. While the phoric method may be employed as palliative in non-operative malignant growths and may, at times, cure, its chief value is in the total destruction of malignant germs in the early stages of primary growth and in the same stages of purely local recurrences."

Blood Pressure.—Dr. J. G. Nelson ventures an opinion as to the propriety of using strychnine and digitalis in surgical or traumatic shock. He says that Crile states that it is as reasonable to treat traumatic shock with strychnine as it would be to treat strychnine poisoning with trauma; that the shock is due to exhaustion of the vasomotor centre, and that strychnine merely sends further stimuli to the centre, increasing the exhaustian. On the other hand,

Cook and others state that they have seen apparently hopeless cases of surgical and hemorrhagic shock resuscitated by large doses of strychnine and digitalis. And, indeed Crile in an earlier work stated that the most effective treatment in these conditions was small doses of strychnine frequently repeated, together with saline solution. To my mind the question boils down to the fact that there are a number of apparently hopeless cases recorded as saved by competent observers; and to the present time there is no way of knowing which can and which cannot. For this reason he personally would surely give strychnine a trial.

The Southern Practitioner, June, 1908.

The Insane Lovers.—By Dr. J. W. Stevens.

Nashville Journal of Medicine and Surgery June, 1908.

The Seventeenth Annual Report of Surgical Operations at the Private Infirmary of Drs. Chas. S. and Samuel S. Briggs.

Atlanta Journal-Record of Medicine, July, 1908.

A Casual Review of the Work on the Appendix.—Dr. Willis Jones believes that if called upon to operate after perforation has taken place, and we are reasonably sure of the presence of pus, Deaver's or Kammerer's incisions will probably find more favor than McBurney's, for they give more room for thorough investigation. In such cases if we are convinced that the process is thoroughly walled off by adhesions, and the appendix difficult to locate, and if by endeavoring to isolate and separate it from the mesentery or coil of intestine to which it is adherent, we are in immediate danger of breaking down nature's barrier and spreading the contaminating exudate, it is far more advisable to establish thorough drainage in this class of cases and wait for the subsidence of the inflammation, before any attempt is made to remove the offending part. This necessarily means a second operation, but will leave a monument to our effort in the existence of our patient.

Every case where there is an exudate resulting from inflammation in the appendix should have some form of drain. In such a practice, many cases will be drained, that would recover without; but the uncertainty of some cases in which its absence might mean added danger, a second operation, or even death leads me to use it in every case where any doubt exists. Its disadvantages are not more than minor inconveniences.

A slight delay in union, a transient pain on removal. In this operation, as in all others done in the abdominal cavity, the wound should be closed in layers, careful of leaving no dead space for the formation of clots, which so frequently are responsible for the failure of primary union.

Pyelitis in Pregnancy.—Dr. F. G. Hodgson says that the prophylactic treatment consists in the proper hygienic measures during pregnancy, seeing that the patients have a proper amount of rest and avoid exposure. The digestive system should be kept in the best possible condition. Careful urinalyses should be made at short intervals.

The curative treatment consists in putting the patient to bed, having her lie upon the sound side to relieve the pressure upon the affected side. The diet should consist of fluids only. Large quantities of water should be taken to flush out the kidneys. A urinary antiseptic should be used and hexamethyltetramine (urotropin) grains five every four hours has given most excellent results. Salol in like doses may be added. The bowels should be kept open with saline laxatives.

There are two forms of pyelitis in pregnancy; one occurring in the earlier months and associated with cystitis, is an ascending infection usually of gonorrhœal origin; the other form occurs in the latter half of pregnancy, is due to pressure on the ureters, stagnation of the urine, and infection with the colon bacillus.

The diagnosis of this condition is frequently confounded with other abdominal conditions or malaria. The pyuria is the chief diagnostic sign.

The cases which are promptly recognized and properly treated usually recover. Those which are overlooked or neglected may go on to abscess formation and destruction of the kidney.

Texas Medical Journal, June, 1908.

Auto-Intoxication.—Dr. R. B. Sellers believes that auto-intoxication in its strictest sense means "self-empoisonment through the absorption of noxious products of katabolism." It is said by some to be caused by the decrease or absence of internal secretions of an important organ, as the spleen, pancreas, liver, the pituitary bodies or the adrenals. This refers chiefly to those forms of disease in which clinical and pathological experiments have shown the invariable changes in an organ of secretory nature, as is found in Addison's disease, myxedema, exophthalmic goitre and many other diseases in which we find the normal functions of certain organs have been disturbed.

The great majority of pathologists, both in this country and Europe, believe that Addison's disease is caused by a cessation of the functions of the adrenals, producing a general intoxication with a most remarkable group of symptoms as general adynamia, gastro-intestinal disturbances, marked nervous symptoms and a profound pigmentation of the entire body.

The Texas Medical News, April, 1908.

Malarial Fever.—Dr. A. Waldert gives the following description of the development of the malarial fever germ inside the mosquito:

When the mosquito of the genus *Anopheles* bites a person suffering from malarial fever, it pours out a minute drop of fluid from the salivary gland under its neck and at the same time injects a certain amount of this fluid into the tissues of man to partially coagulate the blood in order that no blood may be lost, and by a kind of pumping apparatus situated under the insect's neck soon begins to swallow red blood corpuscles, malarial parasites and all into its stomach. After the malarial parasites have been swallowed by the mosquito they begin to change shape and soon protrude from their body small arms or flagellæ tear themselves loose and penetrate the muscular walls of the mosquito's stomach, and pushing their way through the outer muscular layer of the mosquito's stomach, become imbedded there and form cysts, which within three to ten days contain in their interior spores having a spindle shape, and in this respect at this stage may be compared to a mother tick harboring seed-ticks. Later these cystic growths (or *ergates*, as they are also called) break down and the spores from the cysts and are soon carried by the mosquito's blood (which is white in color) to all parts of its body, and especially into the salivary gland of this insect, these spores to be poured out into the blood of man when the mosquito bites him.

Maryland Medical Journal, July, 1908.

Mycotic Infection of the Vagina.—Dr. Flora Pollack says that the symptoms are intense itching, burning or pains, with or without irritability of the bladder. The diagnosis is easily made microscopically, in which the dense white membrane, which may suggest diphtheritic membrane, consists of mycelium and spores, and epithelial cells, is easily removed from the intensely injected mucous membrane of the vulva, vestibule or may cover the entire vaginal canal as a cast, as occurred in the young girl of 15 in my group of cases. It

usually occurs as white or yellowish patches which, as said before, can be easily removed without leaving bleeding areas. The author has been able to grow the fungus in agaragar and glucoscagar and potato and milk, where it has grown luxuriantly for a short time, too short to isolate it from the other bacteria, in order to determine the species. Although it grows rapidly, it is soon killed by other organisms, which is one of the reasons which Von Herff gives for its rarity as a pathological factor.

It is said to be at times intractable to treatment, though usually the acute cases recover promptly after the applications of mild antiseptics.

Virginia Medical Semi-Monthly, July 10, 1908.

Vesical Calculi.—Dr. R. L. Raiford believes that though a small, smooth stone may exist in the bladder for years without producing marked symptoms, or even a comparatively large one which has become encysted, may pass the notice of both the patient and the surgeon, yet we usually note the following prominent symptoms:

Pain, frequent urination, blood and sudden stoppage in full stream.

The pain is referred to the head of the penis and shoots into the perineum, down the thighs, and is increased by riding or jolting or even by walking.

Increased frequency in urination is noticed in the day when the patient is about on his feet, this symptom usually not being present at night.

Blood never appears in large quantities and is not a constant symptom.

Sudden stoppage in urination is when present, a very valuable symptom. It is caused by the stone rolling down over the outlet and cutting off the stream, but is rarely noticed in old men with enlarged prostates.

Diagnosis of stone in the bladder is suggested by the above symptoms, and the history of the patient, but must be confirmed by actual touch with the sound: In recent years the x-ray has been of value in diagnosis though it cannot be put to general use. However, in cases where stone is strongly suspected and cannot be confirmed by the searcher, the x-ray should be used to help clear up the diagnosis. The cystoscope is also of great value in making a diagnosis.

Modern Treatment of Pulmonary Hemorrhage.—Dr. Jaeger says that it is the severe, copious hemorrhage which occasionally even becomes fatal that calls for the most energetic and prompt intervention. Two indications are to be met in this emer-

gency—Firstly, empty the patient's respiratory passages to prevent him from drowning in his own blood; secondly, do everything in your power to stop the hemorrhage. The first is accomplished by placing the patient in a sitting posture, encouraging him to expectorate and, if necessary, removing blood clots from the pharynx and larynx with the finger. It is self-understood that a hypodermic injection of morphine would be directly fatal. To meet the second indication it is necessary to diminish the flow of blood to the lung and to diminish the pulmonary blood pressure. Elastic rubber bandages applied to the extremities tight enough to produce hyperemia will cut off a large amount of blood supply from the lungs. This procedure alone will greatly diminish the pulmonary blood pressure. But we have a powerful ally in amyl nitrite; a few minims of this drug inhaled will immediately cause dilatation of the superficial vessels producing a proportionate drop in pulmonary blood pressure. It has been frequently observed that by the administration of amyl nitrite a large hemorrhage was checked immediately.

Principles of Surgery.—By Dr. Stuart McGuire. Lecture XLVI. The Influence of the General Condition of the Patient on the Result of a Surgical Operation.

Virginia Medical Semi-Monthly, July 24th, 1908.

Some Personal Experiences and Observations on Hernia.—Dr. R. C. Bryan, the writer, does not believe that there has ever been invented or devised a truss suitable for all herniæ under the many exigencies and demands which are thrown upon it by the patient. Change in altitude, in weight, in muscular effort, in intra abdominal pressure and tension, influence and disturb the truss from performing the duties for which it was designed. Only recently the writer had under observation a patient who had a large, reducible, complete, indirect, inguinal hernia on the right side. He had been wearing a truss for 12 years simply because he was "accustomed to it." It did not hold the intestines back and was usually worn over the escaped intestines. Trusses are uncleanly, unreliable and, exerting as they do in different attitudes of the surrounding tissues, inguinal adenitis and dangers to the cord, but are, however, to be recommended and advised in selected cases—as for instance in the umbilical hernia in infants when a small hard ivory or hard rubber pad may be applied under adhesive plaster and cures 80 or 90 per cent. of all instances. Also in those atonic old belly walls in which the consti-

tution of the patient would not allow of superlative surgical measures; mechanical measures have necessarily to be enjoined.

Scarlet Fever—Report of a Case Developing Acute Nephritis and Treated by Spartein Sulphate.—Dr. W. A. Lewis' observations in this case lead him to conclude that spartein sulphate given hypodermically in large doses in all cases of suppression of urine will result in good, and in many cases of acute nephritis where the urine is scanty and loaded with albumin the hypodermic administration of spartein sulphate in connection with the regular treatment for such diseases will help to re-establish the circulation and elimination by the kidneys, thereby saving life. Spartein sulphate should be given in large doses hypodermically; two grains to adults; children in proportion, repeated as needed.

Treatment of Empyema.—Dr. M. E. Nuckols says that of many operations devised for sub-acute cases, decortication of the lung, grid-ironing the pulmonary pleura and separating adhesions between the pulmonary, diaphragmatic and costal pleura with removal of fibrinous deposit (the last mentioned devised by Lloyd), seems most rational, most conservative and least dangerous to life. He maintains that the pleura does not become insensitive and does not lose its elasticity from deposit of plastic exudate, but is prevented from expanding by adhesions. In chronic cases that persist in spite of faithful treatment by these methods, and when there is danger of amyloid degeneration of the viscera, recourse may be had to one of the mutilating operations, either Schede's or Eistlander's. These operations are so mutilating that the writer would hesitate long before resorting to them. The number of cases requiring plastic work should be very few, if proper treatment is carried out during the acute and subacute stages.

The treatment of tubercular empyema is still a mooted question. Thoracotomy would probably always be indicated if it were not for the risk of adding other infection to that already present. Primary tubercular empyema with little or no lung involvement should unquestionably be drained. When associated with extensive or incurable disease in the lung, aspiration repeated from time to time probably gives best results, and makes the remaining days more bearable than thoracotomy or any other operative intervention.

Principles of Surgery.—By Dr. Stuart McGuire. Lecture XLVII. Anesthesia and Anesthetics—General and Local Anesthesia—Various Drugs Employed with their Therapeutic Action, Indications for Use, Methods of Administration.

Book Notices.

Transactions of the Royal Academy of Medicine in Ireland. Vol. XXVI. Edited by James Craig, M. D., F. R. C. P. I., General Secretary, Physician to the Meath Hospital and County Dublin Infirmary, Dublin: John Falconer, 53 Upper Sackville St. London: Bailliere, Tindall & Cox. Edinburgh: James Thin. Bristol: Jno. Wright & Co. 1908.

Aside from its statistical value, the volume contains a long list of most valuable articles on a great variety of subjects. Some of these papers are presented *in toto*; others only in the form of abstracts. It is impossible to mention all of them, but among those which impress the reviewer because of their clearness and genuine interest are: "Diphtheritic Fever," by Sir Jno. Moore, M. D. Dublin; F. R. C. P. I., D. Sc. Oxon; "Prognosis and Treatment of Nephritis," by Dr. J. M. Finney; "Pathology of Nephritis," by Dr. H. C. Earl; "Duodenal Ulcer," by A. B. Mitchell, M. B., F. R. C. S.; "Calmette's Ophthalmic-Reaction to Tuberculin," by Geo. B. M'Hutchinson, B. A.; "Nitrogenous Metabolism in a Case of Myelogenous Leuchemia," by Dr. A. R. Parsons. "Alcohol and Mental Disease," by Dr. W. R. Dawson; and "Hernia of the Iliac Colon," by R. Atkinson Stoney, M. B., F. R. C. S.

Pain: Its Causation and Diagnostic Significance in Internal Diseases. By Dr. Rudolph Schmidt, Assistant in the Clinic of Hofrat Von Neusser, Vienna. Translated and edited by Karl M. Vogel, M. D., and Hans Zinsser, A. M., M. D. Price, \$3.00 net. Philadelphia and London: J. B. Lippincott Company.

The manifestations of disease that are apparent to the senses of the examiner, and therefore susceptible of objective estimation, are, naturally, especially valuable for diagnostic purposes. In undertaking a systematic analysis of pain Dr. Schmidt has performed a useful service. The great difficulties attending such an analysis hardly need to be emphasized to the general practitioner, who is so often called upon to interpret the subjective complaint in terms of the temperament and individuality of the patient. In fulfilling his task the author has throughout tempered his deductions from actual pathological processes with a careful critical consideration of the functional elements which, in the phenomena of pain, so frequently cloud the clinical picture. In many instances, however, he has been able to base his conclusions upon more exact factors of anatomical structure and pathological change. Dr. Schmidt, in

the performance of his task, calls upon the experience of many years with a huge clinical material. The thoroughness and conscientiousness with which he has presented his subject, and in fact the authoritative stamp which the wide reputation for learning of its author gives the volume are ample justification for its translation into English which has been most admirably accomplished by Drs. Vogel and Zinsser. In the preparation of this American edition they have increased the value of the work greatly by the addition of a chapter embodying a brief presentation of Head's researches on referred pains and a series of diagrams showing some of the commoner seats of pain or tenderness in visceral disease. The author, in chapter I, gives an analysis of the sensation of pain; chapters II, III, and IV deal more or less in a general manner with the sensation, the discussion being devoted to Functional Modifications of Pain, Topography in its Relation to Pain, and Quality and Time of Occurrence of Pain. The remaining chapters deal with pain which arises from disease of the various systems, viz: The Nervous System, Organs of Motion, Digestive System, Urinary System and Spleen, and Respiratory and Circulatory Systems.

Consumption: How to Prevent it and how to Live with it. Its nature, causes, prevention, and the mode of life, climate, exercise, food, and clothing necessary for its cure. By N. S. Davis, A. M., M. D., Professor of Principles and Practice of Medicine, Northwestern University Medical School, Chicago; Physician to Mercy and Wesley Hospitals; Member of the American Medical Association, American Climatological Association, Illinois State Medical Society, Chicago Medical Society, Chicago Pathological Society, Chicago Neurological Society, Chicago Academy of Sciences; Fellow of the American Academy of Medicine; Author of a Hand-Book on "Diseases of the Lungs, Heart and Kidneys," and a treatise on "Diet in Disease and Health." Second Edition, thoroughly revised. 12mo, 172 Pages. Bound in Extra Cloth. Price, \$1.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

Consumption is the greatest plague of our civilization and the public should be better informed as to its nature and causes, for many of the latter can be avoided. Dr. Davis during his experience in the treatment of consumption has found, in common with every other practitioner who has to treat such patients, that it is extremely difficult to impress upon consumptives the

necessity of rigidly executing certain sanitary rules, whose fulfillment is so essential to success. From a set of hygienic rules which he formulated for his patients and a brief explanation of their importance the volume in hand has grown. A patient who fully appreciates the nature of his disease and the need of advice and treatment for years will most persistently follow the instructions of his doctor.

The author has therefore prepared this excellent little brochure which appears to be especially adapted for the lay reader and consumptive patient. It is written in simple, concise language, and lengthy technical discussions have found no place in its pages. Yet it will prove of value to the practitioner who is on the alert for practical, helpful suggestions. The necessity of hygienic life and surroundings is emphasized; descriptions of the modes of action of climates, of forms of exercise, of kinds of labor are brought together in this volume and their essential points given such prominence that it cannot fail in usefulness both to physician and patient.

The Principles of Pathology. Volume I, General Pathology. By J. George Adami, M.A., M.D., LL.D., F.R.S., Professor of Pathology in McGill University, Montreal. Octavo, 948 pages, with 322 engravings and 16 plates. Cloth, \$6.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

Professor Adami's new work is one of which the whole English-speaking world of medicine may well be proud. At a bound, it reclaims for the Anglo-Saxon a territory hitherto largely conceded to the activity of the Teuton. Translations or compilations may be excellent, but the result is not to be compared with a first-hand native product in fitness for our needs. Dr. Adami stands fully on the level of his most eminent foreign confreres. He is broad and deep, but he possesses the saving quality of appreciating the fact that the easiest entrance for knowledge is by addressing the reader's faculty of reason. Having found this the best way to acquire knowledge himself, he so imparts it to others. His book is, accordingly, one that explains, connects facts in their natural relationship, rivets the attention and impresses the memory. In a clear and delightful style he displays the whole subject of General Pathology in this volume, to be followed by one on Systemic (including Special) Pathology. The phenomena of disease, or Pathology, are as definite and rationally connected as the phenomena of health, or Physiology. Obviously, the student and physician must have a thorough grasp of the underlying facts of disease,

and must understand what it is in itself, before rational treatment is possible. Precisely this knowledge is available in its latest developments in Prof. Adami's pages, excellently set forth and amply embellished with illustrations.

The Ready-Reference Handbook of Diseases of the Skin. By George Thomas Jackson, M. D., Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, New York. Sixth edition. 12mo., 737 pages with 99 engravings and 4 plates, in colors, and monochrome. Cloth, \$3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

Since the previous edition of this work, its author has been elected to the full Chair of Dermatology in the College of Physicians and Surgeons, of New York, a tribute both to the man and to his book. An examination of his pages affords some insight into the reasons for this appreciation. The most obvious characteristic is directness. The author clears the ground in his opening sections on Anatomy, Physiology, General Diagnosis and Therapeutics, and disposes of the moot subject of classification and nomenclature in the briefest and clearest way by means of a table, displaying the various diseases arranged in the most rational system, with the prominent primary lesion mentioned. The reader is now qualified to take up skin diseases in any order, and the most natural and practical is according to the alphabet. Herein lies the "Ready Reference" feature embodied in the title. Each disease is considered in full, beginning with synonyms and proceeding through the symptoms to the etiology, pathology and diagnosis, and to especially full sections on treatment covering all varieties and complications. The book is rich in formulas of proved value in this very trying class of cases. Answering the needs of students, as well as physicians, this work has merited the demand for six editions in sixteen years. It is well established in favor and repays it by frequent revisions, enabling its readers always to keep posted to date.

A Persistently Good Magazine.

Lippincott's Magazine "pursues the even tenor of its way" regardless of summer's heat or financial panic, each successive number being just as big, just as carefully edited, just as wholly satisfying. The September issue has for its leading feature a stirring detective novel by Nevil Monroe Hopkins—"The Investigation at Holman Square." It is published complete, of course, as is everything in Lippincott's.

Dr. Hopkins's story has to do with a mysterious murder in New York City. His hero, a young electrician, becomes mixed up in it in a perfectly innocent way, yet he is placed under arrest and for a time finds himself in a serious position. The girl he loves is likewise brought under suspicion, as are a number of others. In fact, the plot is so cleverly complicated that the reader who can forecast the outcome will have good reason to pride himself on his astuteness. The mystery is finally solved by Mason Brant, a private detective, who has figured in at least two other detective yarns by the author.

Among the shorter stories is "The Great God News," the tale of a war-correspondent by a war-correspondent—Will Levington Comfort. "Memories," by Fannie Heaslip Lea, is a delightful love story with an unexpected denouement. "The Child of a Widow," by Lucy Copinger; "Deported," by H. C. Stickney, and "The Disaffection of Adelaide," by Laura Simmons, are also uncommonly good stories.

Of offerings other than fiction, there are "Socrates," the story of a pet owl, by Jennie Brooks; "Zelphine in Warwickshire," a charming travel sketch, by Anne Hollingsworth Wharton, and others by Jane Belfield, Herman Scheffauer and Robert Adger Bowen. There are also some excellent poems and the humorous department, "Walnuts and Wine." This last feature is unique inasmuch as every jingle, jest, and anecdote in it is signed by the writer thereof. Fully half of the contributions are by unknown authors, the only requisite for admission being merit. This does not mean that the well known fun-makers are not represented, however. Thomas L. Masson, W. J. Lampton, and most of the other prominent humorists now before the public, contribute to it regularly.

Abstracts of the Leading articles of the month.

Changes in the Stomach as a Result of Thrombosis and Embolism in the Portal Area.

Payr (Archiv für klinische Chirurgie) mentions a series of experiments in animals to determine the part played by thrombosis and embolism in the productions resulting from these lesions. The following are his conclusions:

Thrombosis could be produced in the omental veins of rabbits, guinea-pigs, cats, and dogs by freezing with chloride of ethyl spray or scalding. From these thrombi

emboli could be produced with frequently brought about changes in the stomach wall. By the intravenous injection of small corpuscular elements or semi-solid fatty substances into the region of the radicles of the portal system changes of varying intensity were produced in the stomach in a majority of the experiments, such as hemorrhage into the mucosa and the submucosa, hemorrhagic infarction, hemorrhagic erosion, and ulcer formation. On microscopic examination the artificial emboli could be found in the vein of the submucosa and mucosa and could be traced into the finest capillaries. The hemorrhages and infarcts interfere with the nourishment of the tissues; this together with the digestive action of the stomach juices brings about such defects as erosion ulcer. Also injury to the mesenteric veins may produce similar changes, though not so frequently nor in such great intensity. The circulation in the vessels of the stomach can be impaired not only through the occurrence of retrograde embolism, but also through thrombi situated in various regions. Especially frequently does it appear that thrombosis of the omental veins is communicated to the venæ gastroepiploicæ. The results obtained in animal experiments agree in almost every respect with clinical experience.

Tee After-treatment of Abdominal Operations.—McKay in the Australasian Medical Gazette, gives his experience of some new drugs. For tympanites, salicylate of eserine used hyperdermically in doses of 1.50 gr. has a wonderful effect, flatus being past fifteen minutes after its administration. The beneficial effect is aided by the administration of an enema composed of mag. sulph., glycerine, and water given as soon as the drug begins to act. The dose may be repeated once in six hours without danger. A 10-grain dose of veronal usually gives a long and restful sleep, the patient awaking without headache or nausea. To help the veronal, or if there is pain, heroin, 1-20 gr. hypodermically, is very effective. It causes neither constipation nor tympanites, and is seldom followed by vomiting. For shock, adrenalin, salt solution, digitaline, strychnine, and carbonate of ammonia by enema are recommended. The best results are obtained by injecting a quart of saline under the breast, and then giving 5 minims of adrenalin hypodermically twenty minutes later.

Bromine Vapor in Whooping-Cough.—Scottin (Med. Klinik), after experimenting on himself by sleeping three nights in a room in which bromine vapor was evolved, tried the effect of this vapor on children

suffering from whooping-cough. Since the spring of 1892 Scottin has exposed these patients to the vapor of bromine for two or three hours, morning and evening, and also allows them to sleep in it. Under this treatment the attacks lessen in frequency and violence by about one-half in five to eight days, and after three or four weeks disappear entirely, without relapse.

As it is not always easy to procure bromine vapor, especially in small places, and as it is also a dangerous drug in the hands of the general public, a substance has been prepared, called bromotussin, the vapor given off from which lessens the cough in three, or in some cases two days. He has been unable to collect accurate statistics as to its effect on the number of attacks. Notes of three cases are given, one complicated with bronchitis and one with pneumonia. Cure resulted in two to five weeks. The author finds the treatment of whooping-cough now as satisfactory as it formerly was troublesome.

Trypanosomiasis in the Anglo-Egyptian Soudan.—Balfour (Edinburgh Medical Journal) calls attention to the following points: The extensive prevalence of trypanosomiasis in the Soudan; the presence in cattle of a small trypanosome which Laveran has declared to be a new species and has named *T. nanum*; the question as to whether equines or at least mules are liable to a double infection by two different species of trypanosomes, or are the hosts of a *T. dimorphum* resembling that which affects horses in Senegambia; the great frequency of hemorrhagic ulcerative lesions of the stomach in trypanosomiasis and their significance, also the comparative frequency of intestinal ulceration; the occasional presence of spirilli in these gastric lesions, both in blood-clot adherent to the ulcers and in the ulcerated surfaces, the action of chrysoidine as a therapeutic agent in trypanosomiasis; the therapeutic action in trypanosomiasis of the blood serum of wild animals (big game) whose habitat is in trypanosome infected areas.

Ants as Carriers of Typhoid.—Meyer (Munchener med. Woch.) relates his experiments with mice infected with mouse typhoid, and to whose cages ants had access, as also had they to the cages of some uninfected mice. Shortly after the ants were noticed the uninfected mice all became sick with typhoid. Plates of media over which the ants were allowed to run showed a pure growth of mouse typhoid along the ant tracks. The writer himself became infected, the typhoid bacilli being found in his stools and urine, and his serum giving an agglutination in dilution of 1:250.

Tricuspid Stenosis.—Croom in the Edinburgh Medical Journal, describes a case where the associated pulsation in the liver was ventricular in character instead of being of an auricular type which is usually the case. The patient also suffered from tricuspid lesion. Double thrills were felt both to the right and to the left of the sternum, and the dullness was extended four or five inches on both sides of the midsternal line. Besides murmurs in other situations there were presystolic and systolic ones near the right nipple. Cyanosis was marked and when the blood was counted the red cells amounted to 8,800,000. Under treatment by rest and digitalis this number was reduced, but it was found that oxygen inhalations had an even greater effect in reducing the cyanosis and excess of red blood-cells. The diagnosis was confirmed by postmortem findings. A similar case in some respects is reported by Bond Shaw, who gives reasons for thinking that the tricuspid stenosis was here congenital, though it is remarkable that it caused no disturbance for 28 years till the mitral valve failed. It is noticeable, too, that no murmur was heard over the tricuspid area, though cyanosis and pulsation of the liver were present.

Treatment of Coryza.—In the experience of F. P. Atkinson, in the British Medical Journal, the quickest relief in case of a common cold is obtained by giving 30 minims of sweet spirits of niter and the same quantity of aromatic spirits of ammonia in 1 ounce of water, repeating the dose in two and then every four hours. Three or four doses are generally sufficient to put a stop to the discharge. Should the discharge happen to be thick when first seen, then a snuff composed of 1 gr., cocaine 2 gr., of menthol and 100 gr. of boric acid quickly effects a rapid cure. When the cold has run down into the trachea, as shown by a tickling of the throat whenever a long breath is taken, then a mixture of liquid ammon. acet., dr. 2, sp. ether. nit. min. 10 in 1 oz. of water, every four hours, rapidly gives the required relief.

Arterial Tension and Neurasthenia.---

In *Progres Med.*, Godlewski urges that study of arterial tension in neurasthenia assists to diagnose its various aspects, and indicates the best line of treatment. The tension is over normal in 25 per cent. of such cases. In many old cases the toxic symptoms and high tension are caused by the blood being saturated by nitrogenous katabolites, either by reason of excessive production from muscular or mental exertion, or from renal scantiness. Much benefit is obtained from a milk vegetable diet.

The form of neurasthenia which follows acute cases is accompanied by high arterial tension, whilst neuropathic forms are accompanied by low arterial blood-pressure. The treatment should be such as will bring the blood-pressure to a normal level from either extreme. The author claims that well-being only coexists with normal arterial tension.

Tuberculous Pleurisy is a vital subject, considering how frequently pleural lesions either precede or accompany pulmonary tuberculosis. Martin, in the London Medical Lancet, finds the course of primary tuberculous pleurisy to be very varied; an accurate prognosis in the acute stage of the disease is impossible. In diagnosis must be considered: The mode of onset. The course of the disease, including an examination of the pleural fluid obtained by puncture. The pyrexia in tuberculous cases is frequently much more prolonged, even in the absence of empyema: this symptom in the absence of suppuration or other complication is a strong evidence of tuberculosis. The pleural effusion tends to reaccumulate, requiring paracentesis several times for the patient's relief; it sometimes coagulates spontaneously, unless the disease has become chronic. The result of guinea pig inoculation is often positive. Occasionally the development of peritonitis evidences the tuberculous nature of the case. With regard to the after effects of the case. With regard to the after effects of the disease on the chest wall and lung. There is often such an association. In many cases there remain a greatly thickened pleura. The chief physical signs are well marked retraction of the sides, chiefly the base, and deficient expansion. After a time dilated bronchi may be manifested, even with every other evidence of physical well being. The main factor in treatment is to remove the fluid from the chest. Cases running a prolonged course are best treated by lying in the open air, properly wrapped up; there should be generous feeding. By these means a perhaps fatal tuberculosis may be avoided.

Adenoid Vegetations in Infants.—Moure

(*Journal de Medicine de Bordeaux*) believes that adenoids are much more common in quite young infants than is generally supposed. At this age the existence of respiratory obstruction affords the only definite sign. The respiratory trouble leads to "croaking" noises, and is much accentuated in wet weather. Moure believes that these cases are frequently overlooked or diagnosed as coryza. It is important to deal with these adenoids, since they may

lead to any of the complications, mechanical or septic, associated with adenoids in later life. Owing to the size of the adenoid mass and the danger of its obstructing the air passages when cut adrift; a special curette with a "cage" attachment is used. (Operation has been carried out as early as the twentieth day of life.

The Albuminuria of Adolescents.—Dukes (British Medical Journal), who has had a unique experience of this functional derangement, which is so prevalent during adolescence, has come to some definite conclusions which are of the utmost importance to the welfare of those who are affected thereby.

While formerly believing that this unstable albuminuria during adolescence was frequently the precursor of organic disease of the kidneys, extended experience has convinced him that it is merely a vasomotor disturbance, and that the sufferers invariably recover at, or before, the attainment of manhood or womanhood. He points out the various types of constitution in which the ailment arises—in those in whom there is increased arterial tension, in those where the arterial tension is diminished, and in neurotics. He further indicates the appropriate treatment in each type of individual, especially pointing out that their education and their games should not be interfered with. In his opinion it arises from a want of adjustment of the cardio-vascular system to changes of blood-pressure. The albumen, therefore, mostly occurs when there is any special stress upon the circulation, as in assuming the vertical position, during active exertion, and after meals.

It is a paper that merits careful consideration on account of the unrivalled opportunities for its study which the author has availed himself of for so many years.

A New Method of Muscle Transplantation.—Hildebrandt (Archiv für Klin. Chir.) cites a case of a child who had a paralysis of the left shoulder for $1\frac{1}{4}$ years. This comprised a complete paralysis of the sternocleidomastoid, serratus anticus major, infra spinatus, deltoid and teres minor. She was incapable of raising her arm, the joint was so lax that one could place a finger between the joint surfaces of the shoulder. As the pectoralis major was functioning the author made use of the opportunity and transplanted this muscle over those that were paralyzed. As this method is rather novel he describes it in detail. Incision extends from sternal end of fourth rib vertically upward to the sterno-clavicular articulation; parallel to this is the acromion process, over the shoulder down to the attachment of the deltoid. This large flap is turned down

until the deltoid and pectoralis major are exposed. The pectoralis major is dissected from its origin close off to the bone up to the clavicle where we come to the anterior thoracic nerves together with the larger blood vessels entering the muscle, these are preserved. The muscle now loosened is caused to turn 80 degrees on its axis and is swung over the paralyzed deltoid and is then sutured with catgut to the outer third of the clavicle and the acromion. Its action now would be one of abduction and lifting the arm; skin suture over this with silk. After six weeks the patient was discharged with good use of the arm; she could put her hand to her mouth and back of her head and could raise the arm to shoulder level, also the electrical response was good.

The method was novel in that the muscle was separated entirely from the trunk and the direction of its fibres changed and by being deprived of a great part of its blood supply. This last is of considerable importance since experience has shown with what difficulty a muscle reacts when once disturbed with an almost unavoidable ischemia.

Tuberculous Parathyroiditis.—Carnot and Delion report a case in *Le Bulletin Méd.*, which is interesting on account of the coexistence of convulsive crises and parathyroid lesions in a young woman aged twenty-four years, who was also tuberculous. The convulsive crises developed suddenly; they lasted eight hours, and terminated in death. The movements recalled at the time those of chorea, of athetosis, and of tetanus. At the post-mortem the parathyroids were carefully examined on account of these convulsive phenomena. The internal parathyroids showed no special change, but the right external one was completely absent, and the left one was caseous. There were no changes in the meninges or in the kidneys; it seemed, therefore, logical to attribute the convulsions to parathyroid insufficiency. The writers believe that this case is related to those in which tetanic convulsions are observed in patients after certain total thyroidectomies, and to those which occur in animals after parathyroidectomy. It also recalls the recent clinical researches concerning the parathyroid origin of certain cases of tetany and eclampsia. The writers believe that this is the first case reported of a spontaneous pathological lesion situated in the parathyroids, and accompanied by fatal convulsions.

Some Points in the Treatment of Heart Failure in Diphtheria.—Bolton, in *The London Medical Lancet*, lays stress on two points: (1) prevention of cardiac failure,

and (2) rest, both mental and physical. The first embraces the earliest possible administration of antitoxin. It leads directly to the neutralization of the toxin. The latter becomes very speedily combined with the particular tissue affected by it and is then neutralized only with great difficulty by the antitoxin. In human diphtheria the toxin is not suddenly poured into the blood as in an experiment, but it is poured slowly, and it is therefore possible to neutralize it by large doses of antitoxin. It must be remembered that extensive fatty degeneration of the heart may occur in the short space of three days. Moreover, the remedy must be given in large doses. Most authorities agree that the initial dose should be from 4,000 to 6,000 units. He goes so far as to say that in a severe case as high a quantity as from 12,000 to 24,000 units should be given at once, and if on the next day there is no improvement in the nasal discharge or separation of the membrane, or if the latter has extended, the injection should be repeated. The author finds no greater liability to rashes, joint symptoms, etc., with large doses than with small ones. The matter of rest is all important. In the acute stage of the disease, when the heart is failing, sudden death may occur at any time as the result of the strain of vomiting or jumping up suddenly in bed. If the acute stage is survived and the patient left with signs of heart failure due to changes not in themselves sufficient to kill him, strain may again determine sudden death. On the other hand, if he have no signs whatever of heart failure, the strain of getting up too early in the progress of the disease often initiates it, thus bringing into evidence the latent heart weakness.

Prostatic Hypertrophy and Diabetes.—

Posner (Berl. Klin. Woch.) has examined thirty cases of prostatic hypertrophy, and in five he has found sugar in the urine. He believes that it is important to examine all cases of enlarged prostate for glycosuria, *vice versa*, to examine the prostate in all diabetics. These two diseases occur together more frequently than has been supposed. This is not only because they are common conditions, but also because, as he believes, there is a special connection between arterio-sclerosis and diabetes, and in cases of enlarged prostate there is usually arterio-sclerosis. If a patient suffering from diabetes complains of bladder troubles, these are usually attributed to the general disease, and, conversely, an excessive secretion of urine or a high specific gravity in a prostatic is regarded as due to the local condition. He calls attention to a recent case of prostatectomy which died of coma immedi-

ately after the operation as an indication of the importance of detecting the complication.

At What Age Should a Cleft Palate be Closed?—Murray (British Medical Journal)

prefers as a general rule to postpone operation until the child is between two and three years of age, and advises complete closure at one operation. The author reasons as follows: In order to obtain a well-formed and freely movable soft palate, excess of cicatricial tissue must be avoided. If the cleft of the soft palate is closed during infancy, this can only be done by means of a turnover flap, which of necessity leaves a raw surface to granulate, and will ultimately cause some contraction and stiffening of the parts. If, on the other hand, the operation upon the soft palate is postponed until the child is about two years of age, there is more tissue to work with, and it is generally possible to fashion a good soft palate and uvula by paring the edges of the cleft and uniting them in the middle line. Excess of cicatricial tissue is thus obviated, for union takes place by first intention. Though he has of recent years operated upon the hard palate during infancy and closed the cleft of the soft palate later, he is not convinced that the subsequent powers of articulation in these children have been better than in those in whom the complete operation has been postponed until the second or third year.

Olive Oil in the Treatment of Gastro-intestinal Diseases.—Blum (Berl. Klin. Wochenschrift)

gives the results arrived at in Ewald's clinic during the last year. In his hands the remedy has not been sufficiently successful to justify the claims made for it by Cohnheim as to its usefulness in hyperchlorhydria, ulcer of stomach and duodenum, and stenosis of the pylorus, and suggests that the cases reported by him in which benefit was derived were really cases of hyperæsthesia of the gastric mucous membrane. The conclusions at which he arrived were, that undoubted ulcers of the stomach and duodenum were not benefited, and in some cases hæmorrhage followed the ingestion of the oil, but whether only as a coincidence it was impossible to say. The oil was not liked by the patients, nor readily tolerated in the large doses recommended by Cohnheim; but he found that smaller doses were apparently quite as efficacious. In hypersecretion and hyperacidity the oil was of undoubted use, as it inhibited the secretion of hydrochloric acid, regulated the bowels, and promoted nutrition. In pyloric stenosis with dilatation it produced considerable disturbance, as it was retained in the stomach and became rancid, and did

not appear to favor the passage of the food through the pylorus.

The Dangers and Treatment of Myoma of the Uterus.—Martin, in *The London Medical Lancet*, says that the non-surgical treatment of uterine myomata consists of rest, supporting the uterus, drugs, vaginal plugging and electrolysis. A small fibroid growth does not justify an operation. In cases of menorrhagia it is wise to make repeated examinations in order to determine whether the tumor is growing. The treatment of myoma by drugs is unsatisfactory and resolves itself into the alleviation of symptoms—the chief of which is hemorrhage. The chief drugs for this purpose are ergot, hydrastis, cotarnin and calcium chloride. Bromide of potassium, iodide of potassium, and chlorate of potassium have all been highly lauded in myomata, but the author doubts their efficacy. Tonics, especially iron, are useful when the patient is anemic, weak and exhausted. Laxatives are useful to regulate the bowels. Vaginal plugging is necessary to control dangerous bleeding. He has very little use for electrolysis.

The indications for operation are: (1) where there is severe bleeding which is not controlled by rest and ergot; (2) where there is rapid or persistent growth of the tumor; (3) where there are signs of degeneration; necrosis, or malignant disease; (4) in many cases complicated with pregnancy; (5) in cases complicated with gross lesions of the ovaries and tubes; (6) where there are marked symptoms of pressure on the urinary organs; (7) where the tumor is very large and from its great bulk and weight becomes a burden; (8) in single women where the enlarged uterus simulates pregnancy; (9) in cases of sterility in which the myoma can be removed without sacrificing the uterus.

The vaginal operations consist of curetting, removal of polypi, vaginal myomectomy, ligation of the uterine arteries and vaginal hysterectomy.

The abdominal operations include (1) removal of the uterine appendages; (2) hysterectomy; (3) myomectomy. The author has performed 142 supravaginal hysterectomies with three deaths—a mortality of 2 per cent. The author has done 73 myomectomies with one death.

Primary Caries of the Mastoid Process as a Cause of Mastoid Abscess in Young Children.—Ganggee, in *The London Medical Lancet*, presents the following conclusions: (1) In young children a form of mastoid abscess not uncommonly occurs (in 10 out of 61 cases) in which there is no history of otorrhea and in which the membrana

tympani appears to be normal. (2) In these cases the abscess is of slow and painless formation, the patient's temperature not being raised, and the ear not being displaced. (3) In these cases the abscess is due to primary caries of the mastoid, the patch of caries occurring somewhere along the line of the mastosquamosal suture, this being in a young child the softest and most vascular portion of the bone. (4) If the patch of caries forms in the upper part of the mastosquamosal line, and if perforation of the bone occurs, the dura mater of the middle cranial fossa is exposed and the mastoid antrum is not opened up. (5) If the patch of caries occurs in the middle or lower part of the mastosquamosal line, the antrum is quickly opened up and then the caries spreads rapidly through the mastoid. When the patch of caries is found to be situated in the upper part of the mastosquamosal line and the rest of the mastoid is healthy, then it can be taken that the abscess was caused by a primary caries of the mastoid. When, however, the patch of caries is found to be situated in the middle or lower part of the mastosquamosal line—i.e., in that part which runs along the posterior boundary of the suprameatal triangle—it must remain uncertain whether the abscess is due to primary caries of the mastoid or to tuberculous inflammation of the middle ear. But, reasoning by analogy, it seems at all events probable that mastoid abscesses of this class have a common origin—viz., in caries of the mastoid process; that the patch of caries occurs nearly always along the line of the mastosquamosal suture, and that whether the mastoid antrum is opened up or not depends upon the exact position in the line of the suture at which the caries occurs.

Preliminary Note on the Cylorrhetyes Luis (Siegel) and the Spirochaeta Pal-

lida.—MacLennan (*The British Medical Journal*) found that in two cases of primary syphilis the serum from the cleaned sore and that sucked up from an enlarged inguinal sore, failed to reveal a single spirochete. The preparations from the chancres were, however, crowded with minute organisms of uniform shape and character. Such an organism might be described as a somewhat thick, irregular band bent upon itself more or less so as to almost make a circle. The films from the gland (in one of the cases) showed equally numerous bodies, but in a further stage of development. In them the band had opened out and the "head" had enlarged. The proportion between "head" and "tail" varied in different cases, but various gradations were present in the same film. In another preparation from a hard

chancres the same forms were seen, together with a set still further developed. Between these latter and some of the spirochæta pallida there was not much difference, and the inference from the consideration of these various forms has given rise to the opinion that the spirochæta pallida was merely a development of the more minute series. Further, a number of round, deeply-stained bodies were noted in considerable numbers, and some of these had invaded the red corpuscles. These bodies were filled with small granules, and when a red cell containing such an organism had been burst the debris thrown out was very like a collection of the small organisms seen in the preparations from the chancres and glands of the cases referred to. Other forms seemed to show the breaking up of the spirochetes. Their bodies are similar to those figured by Siegel, who claims specificity for them, declaring that the spirochete was merely saprophytic. He believes that one is merely the development of the other, the spirochæta pallida being merely one phase in the life history or perhaps a part only of the organism during one stage of its development.

Albuminuria and Eclampsia in Pregnancy.—Boxall, in the British Medical Journal, says that the eclamptic convulsion is due to toxins produced by fatty metabolism, together with deficient elimination by the kidneys and liver. Pregnant women are more subject to albuminuria than others, and pre-existing nephritis is likely to become aggravated. The condition increases in severity as pregnancy advances, and almost invariably subsides at its termination. Eclampsia is almost invariably associated with albuminuria, and occurs with proportionately greater frequency in the albuminuria of pregnancy than in the non-pregnant nephritic. The liability to eclampsia bears a rough relation, not only to the amount of albumin, but also to the scantiness of the urine and diminution of urea. Disorganization in the functions of the liver and of the nervous system also plays an important part in the causation of eclampsia. Frequent and regular examination of the urine should be practiced in pregnancy, to safeguard against an outbreak of this condition. If albuminuria exists before pregnancy, or arises during it, strict hygienic and dietetic measures should be instituted. A marked increase in the albumin, or the appearance of nephritic symptoms, calls for prompt eliminative treatment. A tendency to eclampsia may be controlled by chloral. If serious complications arise, the question of interrupting pregnancy must be considered, especially if the patient's condition grows worse in spite of treatment. In some

cases the slow induction of labor by passing a bougie may be practiced; but in bad cases a rapid dilation of the cervix and artificial delivery are necessary.

The So-Called Physiological Cough of Infants.—Thevenet (Lyon Med.) has investigated the cough which often occurs in healthy infants immediately after feeding. He finds that it is of much more frequent occurrence with suckling than with artificial feeding. It is practically unknown in creches. It is a reflex but not a convulsive phenomenon. It is observed as a rule in well-nourished, healthy-looking infants who are steadily gaining weight. From inquiries made from mothers and nurses, it would seem to occur first on the second or third day after birth and to last for twelve months. It is more frequent after the first feeding of the day than after the later ones. In children who are partly breast-fed and partly bottle-fed, it often happens that the cough comes on after the breast and not after the bottle. The cough is associated in many cases with regurgitation of the milk or with actual vomiting of casein; it is found here as a rule, that the cough succeeds the regurgitation or vomiting and is a sign that these have stopped until after the next meal. In a child who has suffered from the reflex cough, any serious digestive disturbances or general illness causing malaise or loss of weight is associated with cessation of the cough. An improvement in health is often heralded by the return of the cough. Thevenet concludes that the cough should be regarded as a sign of relative surcharge of the stomach. It may be looked upon as a favorable indication, but this indication is only a relative one. Its precise significance is the same, only less in degree, as that of the regurgitation which is equally often observed in infants who look quite healthy, but whose feeding is really too abundant or ill-regulated. It indicates that the alimentation is at least sufficient, and that the limit of digestive capacity has been attained. The explanation of the cough is that it is probably an abortive regurgitation, indicating that the stomach will no longer empty itself by the cardiac opening, but has decided on pyloric evacuation; of this the cough is probably not only the signal, but also an auxiliary.

Prolonged Gastric Crises in Tabetic Morphomania.—Drs. Bauer and Dobrovitch (Revue Neurologique) in the discussion of this subject the writers present two cases most carefully observed and minutely reported.

In tabes the usual gastric crises is marked by a sudden approach, a short course and a rapid termination. Generally many attacks

follow each other at intervals, the length of which vary in different individuals. While such are the characteristics of pure tabes, the attacks may be of greater duration, prolonged through weeks and even months, sometimes with imperfect intermission or none at all. Such abnormal crises as these latter have been noted in patients suffering from gastric troubles in addition to tabes and independent of it. Dr. J. Ch. Roux has emphasized the influence of various dyspeptic troubles and especially gastritis upon the origin, symptomatology and development of gastric crises. On the other hand Dr. Mathieu has shown that in certain patients these attacks, infrequent at first, finally occur so often owing to the repeated employment and abuse of morphine, that they become almost continuous. Such facts deserve particular attention and an especial therapeutic intervention.

The first case cited was that of a dress-maker, 44 years old. Gastric crises with symptoms as follows: Abolition of the Achillean reflexes and knee jerks, noticeable hypotonia, slight Romberg, girdle pains, lightning pains in the legs, a slight retardation of tactile sensibility in the lower extremities, unequal pupils,—the right irregular and a little smaller than the left,—while both have a slight mydriasis and react neither to light nor accommodation. Myopia, diplopia and enuresis at the age of twelve. Attacks of diarrhea, diastolic wheezing at base of heart. No hysterical stigmata, no pharyngeal anesthesia, no syphilis.

Such was her condition on entering the hospital. Then appeared the gastric tabetic attacks characterized by vomiting, pain and deficiency of urine. The morphine administered was considered simply sufficient to relieve the distress, but the morphine habit soon developed, crises occurring more frequently and differing from the original attacks in that the quantity of urine remained normal and the patient sought to attract attention, constantly demanding morphine. It was found that she secured the drug clandestinely and the dose was therefore reduced. With the lessening of the quantity of morphine the state of the patient improved while all the organic signs of tabes remained unchanged. There were no hysterical stigmata, nevertheless the gastric crises seemed wholly hysterical.

The second case presented similar disorders connected with spasmodic crises of tabes and the treatment resulted in the development of the morphine habit.

Pneumococcus in Broncho-Pneumonia of Infants.—Wallstein (Journal of Experimental Medicine) says that the pneumococcus was demonstrated in 67 of the 100

cases of broncho-pneumonia examined. The 67 cases consisted of 25 primary and 42 secondary pneumonias. In 42 per cent. of the primary cases the pneumococcus was present in pure culture, but in the secondary cases it was found alone in 15 per cent. only. Pleurisy was present in 51 per cent. of the 67 cases. The lesion was an acute fibrinous exudate in 22 instances, an acute purulent exudate in 4 instances, and a fibrino-purulent one in 8 instances. The cases from which the pneumococcus was absent showed pleurisy in one-third of the number, so that the pneumococcus cases showed a decidedly larger number of examples of pleurisy than did those of other organisms. Purulent infiltrations of the lungs occurred in 7 cases, and all these contained the pneumococcus, either alone or combined with the streptococcus, or the staphylococcus pyogenes aureus. Of the 100 cases, 45 were coalescent, and therefore "pseudo-lobar" in distribution, with the pneumococcus present in 73 per cent. In the focalized cases the pneumococcus was only present in 56 per cent. of the cases.

Protracted Remissions in Tuberculous Meningitis of Children.—Carriere and L'Hôte (Revue de Med.) in their discussion

of the course of tuberculous meningitis and also the diagnosis, which can be made much more positive since the introduction of lumbar puncture, the authors state that the disease can no longer be considered as absolutely fatal. They mention recoveries, and bring three personal observations on children between four and seven years of age, who presented more or less protracted remissions, of 4½, 5 and 9 months respectively. The onset of this intermittent meningitis does not differ in any particular from the other forms. During the quiescent stage, certain manifestations on the part of the pulse, temperature, psychical condition, and nervous system point to an incomplete arrest of the trouble. The lumbar fluid still contains an increased number of leucocytes. The last lethal period is characterized by an abrupt onset and a very rapid course. The anatomical explanation of these remissions consists in the primarily localized disease of the meninges, which may undergo fibrous change, as was demonstrated in the post-mortem examination of one of the cases. However, a new crop of tubercles in the vicinity constituted a permanent danger. During the remission of the pathological manifestations, energetic therapeutic measures are indicated in shape of general hygiene as well as internal medication with calomel, potassium iodide, and creosote, the latter being best given by the rectum.

Fibrous Aortitis and Aortic Lesions in Syphilis.—Melchior (*Arch. Gen. de Med.*) asserts that fibrous aortitis should occupy a place of its own in classification apart from endarteritis deformans. It is distinguished by inflammation in the middle and external coats of the aorta and in the vasa vasorum, with a tendency to affect the internal coats. It appears to be a chronic interstitial infiltration, not due to cicatrization, of gummatous tissue, affecting especially the ascending and transverse arch, but not the periphery. Atheroma has an opposite effect. Though degeneration and calcification may follow, they do not exclude its diagnosis. In the author's opinion it is always due to syphilis. Want of elasticity of the arterial walls causes diffuse dilatations and aneurysms. The frequency of fibrous arteritis and absence of aneurysms in paralysis are quoted by the author in support of his views.

Recent Surgical Methods in the Treatment of Certain Forms of Paralysis.

Tubby (*Brit. Med. Jour.*) delivered an address on this subject before the Hunterian Society of London at its annual meeting. The forms of paralysis referred to were those arising from anterior poliomyelitis, spastic paralysis and some traumatic lesions of the nerves. The author takes up the historical side of the surgical procedures designed for the relief of these affections, giving a complete review of the work done. The modern methods of treatment discussed are, tendon and muscle transplantation, arthrodesis and nerve anastomosis. He makes a report of the following conditions treated successfully: Grafting of the extensor proprius pollicis into the tibialis anticus, and part of the extensor longus digitorum into the cuneiform bone, for paralytic equinovagis associated with paralysis of the tibialis anticus; insertion of the ilio-tibial band into the patella, which was followed by complete recovery, of the power of extension of the leg; grafting of the distal facial trunk for traumatic facial paralysis into the hypoglossal. A careful description is given of the technique necessary for successful anastomosis. The author states that nerve anastomosis is at present a recognized surgical procedure of value.

Value of the Leucocyte Examination in Suppurative Conditions Arising from Middle-Ear Infection.—Darling (*Edinburgh Medical Journal*) reaches the following conclusions:

The number of leucocytes per cubic millimeter is an indication of the amount of body reaction, while the polymorphonuclear percentage indicates the degree of infection. A leucocyte examination, therefore, always

gives information of greater or less value.

Where clinical indications are definite, leucocyte examination may corroborate, but must not be allowed to override, these indications.

Repeated examination of the blood is of more value than a single examination, as a progressive rise or a progressive fall in the leucocyte count gives a definite indication of the progress of the condition.

In uncomplicated cases of acute middle-ear suppuration, the total leucocyte count and the polymorphonuclear percentage were higher than normal in 62 per cent. of the cases. In cases of acute middle-ear suppuration with mastoid complication the total leucocyte count was above normal in 66 per cent., and the polymorphonuclear cells in 77 per cent. of the cases. Little information of diagnostic value was obtained, because in a single examination of the blood the leucocyte count was in some instances higher in the uncomplicated cases than in those with mastoid complication.

In uncomplicated cases of chronic middle-ear suppuration, the total leucocyte count in 33 per cent., and the polymorphonuclear percentage in 25 per cent. of the cases, were above normal. In cases of mastoid complication with an acute exacerbation, the total leucocyte count was above normal in every instance, while the polymorphonuclear percentage was above normal in 66 per cent. of the cases. In cases of mastoid complication without acute symptoms, the total leucocyte count in 44 per cent., and the polymorphonuclear percentage in 37 per cent., were above normal.

In cases of acute and chronic middle-ear suppuration with and without mastoid complication, the leucocyte examination gave information of a general nature as regards the severity and progress of the inflammatory condition, but practically no aid in differential diagnosis.

In cases of acute and chronic middle-ear suppuration with intracranial complication, the total leucocyte count was above normal in 88 per cent.; the polymorphonuclear percentage was above normal in all of them. If the polymorphonuclear percentage is less than 77, examination of the blood suggests the absence of an intracranial complication; when the polymorphonuclear percentage is above 86, there is strong presumptive evidence of an intracranial complication.

In cases of extradural abscess and sigmoid sinus thrombosis, examination of the leucocytes gave no special features characteristic of the nature and site of the lesion. It must be noted, however, that the cases of extradural abscess seemed to suffer more severely from toxic absorption than the other forms of intracranial complication as shown

by the polymorphonuclear percentage.

In the cases of brain abscess the total leucocyte count did not exceed 14,000. In the cases of septic meningitis the total leucocyte counts were decidedly higher than in those of brain abscess, being in no case less than 17,000. The polymorphonuclear percentage, however, was only slightly higher. A total leucocyte count of less than 14,000 suggests brain abscess; a count of more than 17,000 suggests meningitis. This series of leucocyte examinations also brought out the fact that while the cases showed an almost equal amount of toxic absorption, there was in the meningitis cases a much higher degree of reaction than in the case of brain abscess.

The glycogenic reaction was not of much value, as the presence of pus was already an established fact.

After operation and chloroform anesthesia there was usually a rise both in the total leucocyte count and the polymorphonuclear percentage. This passed off as a rule within four days, at the latest in five days.

Esophago-Jejuno-Gastrostomy for the Relief of Esophageal Stricture.—Herzen (Centralblatt für Chirurgie) has suggested certain modifications of Roux's operation which he divides into three stages. The first step of the operation consists in what he calls retrocolic, antethoracic, Y-form jejunostomy. This consists in mobilizing a long loop of the small intestine, bringing this through an opening in the mesocolon and the gastrocolic ligament and upward through a subcutaneous tunnel into the neck.

The second portion of the operation consists in joining the lower end of this mucous canal to the stomach, and the third part in joining the upper end of the mucous canal to the esophagus above the point of cicatricial contracture.

The author reports a case thus treated suffering from esophageal closure due to the ingestion of sulphuric acid. The first part of the operation involved a mesenteric cut over 10 inches in length and the ligation of three jejunal arteries. The second stage was undertaken about three weeks later, the new esophagus being implanted into the anterior wall of the stomach. The third stage was accomplished six weeks later. The esophagus was cut completely through above the upper and more patulous structure which corresponded to the position of the jugulum. The lower end was firmly sutured; the upper end was sutured to the transplanted bowel. A fistula formed the eighth day after operation. Permanent catheterization was practiced from the

mouth for some days. The twenty-first day after operation the fistula was closed, the catheter was withdrawn, and the patient swallowed normally. Four weeks later the patient ate bread, meat, eggs, etc., without trouble. It was noted that peristalsis could plainly be perceived beneath the skin each time an effort at swallowing was made.

On the Sensibility of the Internal Organs.—Mueller (Centralbl. für Chir.) in an interesting article on this subject agrees with Lennander, and he shows that the majority of the internal organs—stomach, intestine, liver, spleen, lungs, brain—are insensitive to such external stimuli as the edge of a knife, the point of a needle, the heat of a thermo-cautery, or squeezing with forceps.

His contention is that while an organ may be quite insensitive to chemical and mechanical irritation, it may nevertheless be sensitive to pain, and he believes that from all these organs sensory fibres pass to the brain through the sympathetic nerves. The writer states that apart from gross mechanical and thermal stimuli, others, such as disturbances in their blood supply in the form of ischæmia, exaggerated contractions of the musculature of the stomach and intestine, abnormal contents, and abnormal conditions of distension, may excite pain in the normal organs.

The author has investigated the subject in relation to each of the internal organs, and adduces a great deal of evidence in support of his contentions. In the case of the brain, for example, which has been demonstrated to be insensitive to mechanical interference, it has been alleged that all headaches have their origin in the dura mater; but this hypothesis sustained a rude shock when it was further shown that the greater part of the dura is similarly insensitive to mechanical irritation. He maintains that the brain itself can react with violent pains to chemical noxæ (alcohol, carbonic oxide, nicotine, bacterial poisons), to disturbances of the circulation (spasm of arteries, embolism), to mental overstrain, and to unpleasant psychical stimuli. Concerning the heart, while it is established that the cardiac muscle and its serous investments are insensitive to mechanical and inflammatory irritants, the myocardium is extremely sensitive to ischæmic disturbances. The writer regards the hypothesis of Lennander and Wilms as incapable of explaining the colic of lead poisoning, tabetic crises, and biliary and renal colic, or the sensitiveness of the liver, the female pelvic organs and the bladder.

He says that the sympathetic nervous system with its connections with the spinal

cord not only serves to transmit psychical influences arising in the central nervous system to the vaso-motor mechanism, the sweat glands, the stomach, intestine and sexual organs, but, true to its name, is capable also of transmitting sensation from the internal organs to the brain.

Treatment of Basal-Cell Carcinoma of the Skin and Mucous Membranes.—Clairmont (Archiv für klinische Chirurgie) applies the name basal-cell carcinoma to those epithelial tumors which spring from the corium in contradistinction to those which grow from the epithelial layer proper. The writer states it is of little consequence whether they are called basiliomata, matrix-, corium-, or basal-cell carcinoma. The cells may be cubical, ovoid, or cylindrical. The author reports in detail 19 cases, 11 of which were of the face, 2 of the scalp, 3 of the trunk and extremities, and 3 of the mucous membranes. The conclusions of the author are as follows: The carcinomas of the skin are best differentiated according to their histogenesis into basal cell cancer, flat-cell cancer, and transition forms. This is especially to be recommended, inasmuch as in this way clinical differences are indicated which frequently permit the separation of squamous from other forms of carcinoma. The basal-cell carcinoma in the region of the inner angle of the eye has a peculiar malignancy which is not observed in other localities. The rodent ulcer is a form of basal-cell cancer. The principle of histogenetic classification receives further support in the control exercised by the x-ray. The basal-cell carcinoma, even when widespread, can be made to completely disappear under the influence of the x-ray. This treatment gives excellent cosmetic results and the duration of the cure is satisfactory. Squamous carcinoma, however, is not favorably influenced by the Roentgen ray. For these cases excision is necessary. Basal-cell cancer is rare upon the trunk and extremities.

Diagnosis and Treatment of Hydrocephalus.—Hammerschlag (Monat. f. Geb. u. Gyn.) states that the prognosis of hydrocephalus in the unborn child is very bad for the mother, delivery requiring some sort of operation. Maternal mortality is 20 per cent., of which 13 per cent. is from rupture of the uterus and 7 per cent. from infection. The diagnosis of this condition is difficult, there being no one infallible sign of its presence. The signs given are these: conformation of the abdomen is peculiar but is the same for hydramnion, twins, ascites and hydrocephalus; absence of ballottement depends on the size of the head, which may be hydrocephalic and yet give ballottement

with a large amount of amniotic liquid, feeling like parchment through the abdominal walls noted only with very thin walls; nonengagement of the head, common to many conditions. Frequency of heart action is of no value. Feeling of widely-open sutures and fontanels is found in some non-hydrocephalic heads, as in one case described by the author, in which an attempt was made to collapse the skull by perforation of a head that proved to be normal, ossification being slow. Carrying the entire hand into the uterus is difficult and dangerous for the mother, rupture being possible. In aftercoming head the condition will not be suspected until the body is born. The most important sign is the abnormal size of the head as felt through the abdominal walls. In some cases a forceps operation can be done; in others the covering of the fontanels can be pierced and the fluid drawn off without injuring the child, in others only perforation and crushing will allow of delivery.

Diet and Heart Disease.—Duckworth, in the London Practitioner, says that plain food of all varieties, plainly cooked, taken in regular meals, without any overloading, or excess in solids or liquids, is to be enjoined. Gastric, or intestinal, dyspepsia is naturally inconsistent with favorable nutrition of the body generally, and of the myocardium in particular. In the young, so long as sufficient food is taken, there is no need to encourage excess, or to feed habitually between meals. Strong meat soups and essences are to be avoided, and tea sparingly taken by both young and older patients. As a rule, all alcoholic drinks are best omitted from the diet, and tobacco smoking is to be abjured, or very slightly indulged in, and then only after a meal. If tea or tobacco induces palpitation, neither must be used. If these measures are imperative in the case of simple myo-hypertrophy of the heart, they are even more so when failure of muscular efficiency shows itself by the well-recognized symptoms of dyspnea, palpitation and oppression of the chest.

If, as a result of this failure, there is dropsy, the diet has to be modified. It is necessary to feed such patients with small meals, and to limit the amount of fluids of all kinds. It is also desirable to make the principal meal soon after mid-day, and to enjoin a lighter one in the evening; to avoid giving, at any one time together, proteids and carbohydrates. The choice of food is hardly important so long as it is simply prepared and readily digested. Predigested food is not so necessary as is commonly believed, but it may be needed in some cases.

Soups and milk, therefore, are unwisely recommended in most instances, as tending to flatulence and discomfort in bedridden or sedentary conditions. Coffee with an equal part of milk is often a good cardiac stimulant, and may be better digested than tea as commonly made. A small cupful of freshly made China tea, with cream, may be given in the morning, and as much cocoa with milk later in the day. Small amounts of water or un-aerated, indifferent spa water, may be given between meals. In the later stages of progressive heart failure with tumidity of the liver and dropsy, predigested foods may be employed; milk and barley water with citrate of soda and Koumyss may prove sufficient nutriment till some measure of appetite returns. Small quantities of iced champagne may prove useful. The question of withholding all salt from the food is worthy of consideration as soon as dropsical symptoms appear, and this plan may be tried.

Management of Third Stage of Labor.

—Blacker, in *The London Medical Lancet*, summarizes his paper as follows:

1. The third stage of labor is best treated by the employment of the Dublin or Crede's method of expressing the placenta after a sufficient interval of time has been allowed to elapse for the placenta to become separated from the uterine wall. 2. The tendency to shorten this interval of time to much less than the thirty minutes recommended by Crede is attended with considerable risk to the mother. 3. It is, however, best to be guided by careful observation of the changes in the uterus indicating that separation of the placenta has or has not taken place rather than by any arbitrary period of time. 4. After the change in the level of the fundus of the uterus takes place, indicating that the separation of the placenta has occurred, from ten to fifteen minutes should still be allowed to elapse so as to diminish the risk of the retention of any portion of the placenta or membranes. 5. If there is reason to suppose that the placenta is adherent and a trial of expression fails no harm will result to the mother in the absence of any urgent indications if a period of from one and a half to two hours is spent in waiting for its spontaneous separation and expulsion. 6. Manual removal of the placenta should never be performed if it can be avoided, and it should not be practiced in the absence of severe hemorrhage or any other indication for its immediate performance until from one and a half to two hours have elapsed since the birth of the child, and then only if further attempts at expression fail. 7. Retained portions of placenta and membranes should be removed

at once, unless in the case of the membranes they are of quite small size. 8. In performing this operation it is a wise precaution to wear sterilized rubber gloves.

Acute Rheumatic Arteritis.—Barrie (*Presse Med.*) says that acute rheumatic arteritis most frequently attacks the aorta, less so the peripheral and coronary arteries, also possibly the visceral arteries. Rheumatic aortitis is frequent, but seldom in the peripheral form. The writer has seen the brachial, Fajole the carotid, and Segroux the axillary arteries affected. Towards the end of an attack of rheumatic fever it is shown by pain localized to the course of the artery tender to pressure. Pain is not sudden; a feeling of engorgement and weight with loss of power in the limb affected are first noticed. The limb feels cold, and is swollen; at times the artery is more or less dilated. Pulsations are exaggerated, the vessel less elastic, and on pressure more resistant. After a period the exaggerations of the pulse are diminished. Mild cases disappear in less than a fortnight. There are no febrile symptoms. In a more serious form there is intermittent fever; the artery is obliterated, and feels like a hard, tender cord; the radial pulse is lost. The limb is pale, very cold, and often discolored; there is intense pain, and loss of tactile sensation. Sometimes the affection spreads to other arteries, and death follows cerebral lesions. Gangrene has not been recorded from rheumatic arteritis. Chronic cases result in arterio-sclerosis. Pericarditis is a common complication of arterial inflammation. If the coronary arteries become affected, great changes occur in the myocardium, when acute dilatation of the heart may cause sudden death.

Primary Cancer of Fallopian Tube.—

Rollin (*Ann. de Gyn. et d'Obst.*) observed bilateral primary epithelioma of the tubes in a woman aged forty-six. The patient had no history of cancer in her family. She had given birth to one child sixteen years ago; four years after this, her only pregnancy, she suffered from metritis and salpingo-oophoritis. Dull hypogastric pains, with free discharge of tea-colored, watery and odorless fluid, persisting for twelve months. She had regular periods, not quite so free as before this illness, with paroxysms of pain during catamenia. Micturition caused great pain. On examination, Rollin found, two inches above the right groin, a tender swelling extending to the pelvis; another swelling was found in the left fornix. On operation, after fixing and antivering the uterus, both tumors were removed with the uterus and ovaries. They consisted of the two Fallopian tubes, the

right dilated to the size of an orange; the left was much smaller. Both contained chocolate-colored fluid, with cauliflower masses of epithelial cancer growing from the walls of the tubes. The ovaries were quite healthy. The patient progressed favorably, and was discharged from the hospital.

Extroversion of Bladder. Lendon, in *The British Medical Journal*, refers to the extraperitoneal transplantation of the ureters into the rectum and three cases are reported. In the first case, after careful disinfection of the bladder surface, a director was passed in each ureter. A button or rosette of mucons membrane was cut around the ureteral orifice so as to save any valvular or sphincteric action which that opening might possess. A finger was inserted into the rectum and a pair of Lister's forceps was guided along the finger and thrust through the wall of the bowel. Its blades were opened widely enough to seize the end of the ureter, which was then drawn through into the rectum and kept there in position with an ordinary pair of clip forceps. The same was done on the opposite side, the handles of the forceps dangling outside the anus. Unfortunately, an assistant removed the forceps attached to the right ureter, which worked its way out of the rectum. Later this ureter was transplanted into the sigmoid flexure. The result was an excellent one. There was no irritation of the rectum, no frequent urination, and the patient has enjoyed physical comfort for nearly seven years. In the case of the second patient the right kidney had been removed previously so that only one ureter remained to be dealt with. The only modification of the technic of the previous operation consisted in first inserting a rubber catheter, with its point removed, into the ureter, and stitching it to the mucons membrane. This facilitated the drawing of the ureter into the rectum without so much bruising of the orifice. The patient died three months later, and at the autopsy it was found that the ureter had escaped from the rectum, the urine meanwhile having found its way through an ulceration into a loop of small intestine, at a distance of a few inches from the ileo-cecal valve. The third patient was operated on by this method with complete success about a year ago.

The Treatment of Uterine Rupture.

Eversmann (*Arch. f. Gynaek.*) reports the comparative results of operative and non-operative treatment of uterine rupture for four years at the obstetrical clinic at Bonn. During these years the tendency to the operative treatment for this condition was very strong, and many patients were sub-

jected to operation that ordinarily would not have been so treated. In spite of the improvement in operative technique the mortality by this method was forty-five per cent., as compared with only twenty per cent. by the use of conservative treatment, especially tamponing. Even if we take the percentage of mortality only from the most favorable operative treatment, namely, abdominal total extirpation and suture of the peritoneum, nevertheless tamponing has a mortality of 5.5 per cent. less. The exact figures were: hysterectomy, 35.5 per cent.; tamponing, 30 per cent. The author concludes that the treatment by tamponing with a pressure bandage is the best treatment for uterine rupture. It has the additional advantage that it can be done at the home of the patient without removal to the hospital. Where, for one reason or the other, an operation becomes necessary the choice must be between suture of the serosa and abdominal total extirpation. Should there be a strong probability of infection hysterectomy should be preferred. Great stress is laid upon the danger of transporting the patients from the home to the hospital. Hemorrhage, as such, rarely requires operative treatment, since the rupture in only about one-seventh of all the cases involves the laceration of the larger arteries. In only twenty-six out of three hundred and sixty (i. e. 7.2 per cent.) was the child found lying in the abdominal cavity. This accident is therefore not nearly so frequent as has been generally supposed. Even here operative treatment may be deemed advisable, owing to the condition of the patient.

Harmful Influence of Cooked Meat in Tuberculosis.

—Ricket (*Revue de Medicine*) fed dogs which were tuberculous with cooked meat, while to others he gave it raw. An exclusive diet of cooked meat was fatal. He does not conclude, however, that it would be fatal in man. He believes, however, that the health and appetite of tuberculous patients would be greatly improved if they partook only of a small amount of cooked meat. Cooked meat as the sole article of diet is the worst form of nourishment that can be given; raw meat as the sole article of diet is the best—at least, in tuberculous dogs.

Costal Cartilage Resection Because of Persistent Pain.

—Bayer, (*Prager Medizinische Wochenschrift*) mentions the case of a woman who in June, 1907, noted that the upper ribs on the anterior of the thorax were forming a distinct anterior projection. This was accompanied by pain in the ribs, in the breast, and in the muscles of the arm, recurring, growing in severity and almost un-

bearable in intensity of movement. Examination exhibited a deformity of the chest, suggesting that the second, third, and fourth ribs had been powerfully sprung forward. The x-ray showed nothing abnormal, nor did palpation demonstrate any local point of tenderness. Six months later the patient was found quite crippled for all work; the condition was the same, excepting the ribs were slightly tender on pressure. The x-ray was negative so far as any disease of the bone was concerned. The condition corresponded to Trendelenburg's disease of the costal cartilages in that it occurred on the right side and involved the second and third ribs. It was not, however, accompanied by emphysema of the lung. Incision showed a thick fibrous perichondrium, the cartilage itself exhibiting the appearance characteristic of old age, whilst in the middle there was a central cavity. The cartilages of the second, third and fourth ribs were removed. When the operation was terminated the symmetry of the breast was renewed and healing occurred promptly. The patient wrote three weeks later that she experienced very slight pain on movement.

Typhoid Fever: Its Contagiousness.—Conradi (Klin. Jahrb.) has found the typhoid bacillus in the stools as easily as the eight and eleven days before the appearance of the first symptoms. The sick person has thus been spreading the disease even before he lies up at home or in hospital, no matter how early that may be. He divides bacillary carriers into three groups—(1) healthy people who simply carry the bacilli; (2) sick people who discharge bacilli in their excretions intermittently at intervals for about ten weeks, (3) sick people who constantly discharge bacilli. In 400 cases he found only two of the third class and twenty-two of the second, i. e. $5\frac{1}{2}$ per cent. He gives a striking example of the third group, namely a woman, who had typhoid in October, 1903, and conveyed the disease to her servant in 1905. She had constantly; up to the time of writing, discharged typhoid bacilli. The author thinks that transmission in such cases is by contact only, and that the bacillus from them could not transmit the disease through water, etc. Individual receptivity plays an important part. Conradi found that two of the people in contact with typhoid patients, though themselves to all appearance well, showed bacilli in their blood, in the one case Eberth's bacillus and in the other paratyphoid Bacillus B. He further isolated typhoid bacilli from the excreta of individuals long convalescent from typhoid fever cases, and seeks the explanation in a reinfection.

Miscellaneous.

New Subscribers for August.

Dr. Karl Osterhaus, Norfolk, Va.
 Dr. Wm. Fountain, Greenville, N. C.
 Dr. Zeno Brown, Greenville, N. C.
 Dr. Jos. E. Nobles, Greenville, N. C.
 Dr. B. T. Cox, Winterville, N. C.
 Dr. F. C. James, Bethel, N. C.
 Drs. Nelson & Ward, Robersonville, N. C.
 Dr. H. T. Clark, Scotland Neck, N. C.
 Dr. O. F. Smith, Scotland Neck, N. C.
 Dr. J. P. Wimberly, Scotland Neck, N. C.
 Dr. H. T. Furgerson, Halifax, N. C.
 Dr. P. C. Brittle, Kelford, N. C.
 Dr. Arthur W. Green, Ahsokie, N. C.
 Dr. John L. Prichard, Windsor, N. C.
 Dr. A. W. Disosway, Plymouth, N. C.
 Dr. J. W. Warren, Edenton, N. C.
 Dr. Rob't. W. Smith, Hertford, N. C.
 Dr. W. B. Sharp, Hertford, N. C.
 Dr. I. Fearing, Elizabeth City, N. C.
 Dr. C. W. Sawyer, Elizabeth City, N. G.
 Dr. J. J. Young, Clayton, N. C.
 Dr. B. A. Hocutt, Clayton, N. C.
 Dr. W. D. Crocker, Lucama, N. C.
 Dr. George S. Coleman, Kenly, N. C.
 Dr. L. D. Wharton, Smithfield, N. C.
 Dr. L. A. Muns, Smithfield, N. C.
 Dr. P. N. Melchor, Fayetteville, N. C.
 Dr. Chas. Highsmith, Dunn, N. C.
 Dr. T. S. R. Ward, Blacksburg, N. C.
 Dr. J. M. Caldwell, Blacksburg, S. C.
 Dr. Wm. Anderson, Blacksburg, N. C.
 Dr. J. M. Sloan, Gastonia, N. C.
 Dr. J. Clegg Hall, Albemarle, N. C.

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Cystic Disease of the Liver.—Conforti (Brit. Med. Jour.) examined the cystic liver and kidneys of a woman dying suddenly at 52. The kidneys were twice the normal size and were converted almost entirely into a collection of rounded cysts. The liver was of normal size and shape; the capsule of the left lobe was much thickened, whilst that of the right lobe was not. On section the right lobe was found congested, and a few small cysts were found in its portal spaces. The left lobe, however, was converted into a mass of cysts with connective tissue walls and gelatinous opalescent contents; between these cysts were stands of fibrous tissue, islands of tissue substance and dilated ducts filled with bile. The excess of fibrous tissue was almost confined to the cystic part of the liver. The right lobe, which contained but few cysts, manifested under the microscope venous congestion; and round the bile ducts in most of the portal spaces an excess of fibrous tissue could be seen; the ducts were but little dilated. In most of the portal spaces a new formation of bile ducts could be seen. At the limits of the cystic portion of the liver these newly-formed bile ducts were more developed, and were invaded with young connective tissue sheaths, which also penetrated into the hepatic lobules. Small masses of connective tissue, rich in vessels

and cells, could also be found isolated in the middle of some of the hepatic lobules; the cysts in the left lobe were mostly lined with cubical or flattened epithelium and had fibrous walls. The bile ducts were generally dilated and surrounded by an excess of fibrous tissue; the epithelial lining had been shed from the most distended of these ducts. In the portal spaces the new formation of bile ducts was in active process, these epithelial tubules and their connective tissue sheaths passing deeply into the neighboring hepatic lobules, which were much congested and rich in fibrous tissue. In the most cystic parts there were a few atrophic liver cells surrounded by much fibrous tissue and by cysts, by thrombosed vessels, and by vessels showing chronic inflammatory changes. Conforti concludes that the cysts are derived from newly-formed bile passages, which becomes surrounded and stenosed by the proliferation of new connective tissue around them. The writer says that a very mild and chronic irritation and consequent proliferation of the connective tissue round the bile ducts is the primal factor in the production of cystic disease of the liver.

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I am well pleased with effects of Ethol in severe cases of blood poisoning; as an external remedy in all painful affections, especially rheumatic, as was demonstrated in the case of my wife, who was laid up in bed with a painful rheumatic affection of one of her feet, which after bathing and wrapping with Ethol, to my surprise was about the house again the next day. She swears by it, and will not allow me to be without it. I have also found it excellent in pruritus ani and erysipelas. I prescribe it through a druggist in Newburg, and have bought three bottles for myself. I am now using it in a case of ulcer in an old man, on the bottom of his foot, which is healing.

G. A. GORSE, M. D.

Meadowbrook, N. Y.

Influence of Massage of the Renal Region Upon the Urine in Nephritis.

Callisto following in the footsteps of Menge, Schrieber and others, who showed that massage of the kidney could produce a transient albuminuria, investigated the question as to whether massage of the renal region did not produce marked changes in the composition of the urine. After having made sure that this procedure does not cause any changes in the urine of healthy persons, the author studied its effects in six patients with various renal affections.

He found that in acute parenchymatous nephritis massage produced an increase in the albuminuria, which was occasionally marked, and also caused a diminution in the amount of water and of chlorides eliminated. On the other hand, in interstitial nephritis there was a diminution in the amount of albumin, while the chlorides and the total amount of urine were increased after massage. In the sediment massage produces a noteworthy increase in the number of cells and casts in both parenchymatous and interstitial nephritis. It may be said, therefore, that massage of the kidney produces some improvement in the excretion of the urine in interstitial nephritis. This improvement may be due to a congestion which massage produces in a kidney. The author asks if this does not justify us in using massage as a method of treatment in interstitial nephritis. On the other hand, in parenchymatous nephritis massage seems to be injurious, because it decreases the amount of urine and increases the albuminuria.—*La Tribune Medicale*.

Ammonuria in the Puerperal State.

A. Mariani has examined the urinary condition in normal women during pregnancy and the puerperium as to the elimination of ammonia and the relation to the

hepatic functions. Normally, in the unimpregnated condition, there are only traces of ammonia eliminated as salts. It is increased by a vegetable diet, by the febrile state, and by severe poisoning by phosphorus and other inorganic poisons. The author concludes that during the last months of pregnancy a larger amount of ammoniacal salts are eliminated than normal. It is increased during labor, and continues large through the first week of the puerperal state. The increase of ammonia in the urine may be attributed to a slight acidosis of the organism, as well as to an insufficiency of the liver to produce urea.—*Archivio di Ostetricia e Ginecologia*.

Yearsley in the *British Journal of Children's Diseases*, summarizes the aural manifestations of inherited syphilis. Middle-ear inflammations in these children do not differ from those in others, but specific treatment must be carried out. It is the labyrinthine affections that are the most characteristic and important. There are two separate varieties pathologically, and they are recognizable clinically by the presence or absence of vertigo. The latter class are the most numerous, and in the patients other stigmata of syphilis are practically always present. The symptoms are gradually increasing deafness, commonly in adolescents and young adults, and the associated lesion is chronic specific osteitis of the labyrinth leading to complete occlusion. In the cases with vertigo the symptoms are due to increased tension caused by exudation, and the age of the patients may be anything up to fifty years. Although a certain number of ears are destroyed by syphilis before or within a few months after birth, the number of deaf mutes who have this disease is relatively very small, as most of the sufferers are over eight years old when attacked. It is a curious observation that in many cases the deafness has become first evident during a course of treatment for interstitial keratitis or other inherited lesion, and he also notes that active mercurial treatment for the deafness has very little effect. Pilocarpine has given good results in three cases in which he has tried it, but it must be given early to be of any benefit. The true role of mercury is as prophylactic in infancy, for it is very seldom that ear symptoms are found in any but those in whom this has been neglected.

Erysipelas in the New-born.—Herrgott (*Ann. de Gyn. et d'Obst.*) states that erysipelas in new-born infants is extremely grave and merits consideration. It generally shows itself by the presence of peritonitis, the tissues not showing the usual

lesions. The author gives two illustrative cases, both of which were rapidly fatal. The grave feature in these cases is the absence of phagocytosis in the new-born. The infection by the streptococcus is not antagonized by the leukocytes and hence it goes on to infectious peritonitis. In children over three months old phagocytosis occurs and the results are quite different. The lesions that exist in the skin differ materially from those of the adult. It is the subcutaneous tissues that are especially involved, and here most of the bacteria are found. The lymphatic vessels of the subcutaneous tissues are filled with them and they are very abundant in the loose cellular tissue which forms the outside coat of the arteries. Histological lesions are almost absent, the skin being only slightly edematous. This absence of reaction renders the disease much more grave. The lymphatic ganglia oppose no resistance to the germs. When an abscess forms the prognosis is much better because this shows that reaction is taking place. The progress of erysipelas in infants is very insidious. The germ enters by the solution of continuity at the umbilicus. Redness is not very intense, and the skin and subcutaneous tissues are indurated. A rapid evolution goes on to peritonitis and death. Treatment has very little effect.

Execution of the Insane.—British Medical Journal recently published the statement that an English justice has sentenced a lunatic to be hanged for murder. The murder was a peculiarly brutal one; in fact, so cold blooded as to suggest insanity as a motive. This was amply proved by the testimony in court. In spite of the evidence submitted, the sentence of death was pronounced. After commenting at considerable length upon the case, our contemporary concludes as follows: "This may be the best way of disposing of such persons, but we very much doubt whether public opinion would approve the doctrine if the issue were placed fairly and squarely before it. The legal profession sometimes twits the medical with desiring to save the lives of murderers on sentimental grounds. This is a misunderstanding of the facts. Medical opinion does not seek to interfere with the course of justice; it is only anxious that justice for once in a way should carry out her duties with eyes open. Medical opinion says the accused person is insane, acted under an insane impulse and was irresponsible; the 'legal test' rigidly applied, as in the instance of this particularly brutal murder, does not afford the jury a fair test of responsibility or irresponsibility. It is, therefore, bad, and results in the punish-

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ment of an irresponsible person, which is, we submit, contrary to the spirit, if not to the letter, of our laws. If the legislature were to direct that insane murderers ought to be hanged, it would be a different matter. As it is, the public believe that insane persons are not hanged. Clearly they are mistaken."

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The Charlotte Medical Journal.

VOL. LVIII

CHARLOTTE, N. C., OCTOBER, 1908.

No. 4

A Report on One Hundred and Twenty Knee Joint Operations.†

By Michael Hoke, M.D., and C. R. Andrews, M.D.,
Atlanta, Ga.

You will be pleased to know that I have no intention of wearying you with a prolonged, detailed report of the knee joint operations mentioned in the title of this paper. It is not often that the general practitioner has the opportunity to see the inside of the joints when affected with the various conditions which have necessitated the operations. As the general practitioner is usually the first one to come in contact with these cases, it seems to me that if I select certain ones from the number, describe the conditions found in the joints and state the results obtained, it may be of value to you. Ninety-seven of these cases were the results of toxic arthritis. I wish to take a few of these and show in connection with the clinical history, the various degrees of inflammation of the joints in this process.

Case 1.—Miss H. This young lady had had indigestion for a number of years before she was seen by me. When I first saw her, both knees were swollen, the left slightly, the right considerably so. There was fluid in the right joint. A diffuse thickening of the joint capsule was palpable, and in the upper, inner quadrant a small mass could be felt. She had been "rheumatic" for some time. The fingers were inflamed and she also had pains in the other joints. The right knee was slightly bent. Palliative measures helped her somewhat, but the right knee remained enlarged. Her family took her to Hot Springs. She returned with the knee still swollen. She was then content to have the operation.

The joint was opened and a small amount of fluid evacuated. The synovial surfaces were injected, showing minute ecchymosis, and the small villi were enlarged so that the synovial surfaces showed minute elevations. The margins of the cartilage of the head of the femur were injected. Some of the blood vessels here were as large as a pin. The surfaces of the hyaline cartilage, instead of being white and glistening, presented a very fine tracing of capillaries. The mass in the upper, inner quadrant was a localized thickening of the joint capsule in that area. This tissue was removed and the joint washed out and closed. The subsequent history of this case was tedious, the main factor being the gastro-intestinal disturbance manifested

by nausea, vomiting, now and then much gaseous distention, and obstinate constipation. The knee joint itself continued to be painful for a number of months, though the swelling entirely disappeared subsequent to the operation. It was necessary for this patient to wear a brace for a number of months in order to maintain the anatomical position of the leg.

This was one of the toxic joints in the earliest stages of inflammation. A microscopic section of the tissues excised showed inflammation which was characterized mainly by infiltration around the blood vessels. This was one of the first joints operated upon. At that time the writer felt that the cause of the inflammation was some poison circulating in the blood. This patient has arthritis now and then since, but the end result was a normal joint with normal function. This case illustrates the earliest beginning of the toxic inflammation of the joint. At the time this case was studied and treated, the nature of the toxic process was not known. However, it was thought to be in the intestinal canal, and the line of general treatment was based on this conception of the nature of the disease.

Case 2.—Age 21. For about a year the right knee had been painful, following an injury. The joint had been treated with plaster-of-paris without improvement. At the time she was seen, it was in the same condition that it had been for several months. The knee joint contained fluid and felt flabby, the swelling being chiefly above the patella. The general condition of the patient was of interest. She had had abdominal pains for some time, so severe at times as to simulate appendicitis. The least exertion brought on fatigue, and her complexion was muddy. The joint pains were confined to the knee. She was nervous and slept badly. On entrance to the hospital, her temperature ranged between 98 and 100. She was kept in bed for several days on a fermented milk diet. Soon the temperature became normal, the abdominal pain disappeared and her complexion cleared up. Her general condition was also much improved.

The knee joint was opened and a quantity of fluid evacuated, in which there were numerous coagula. The margins of the cartilages were congested. The capsule of the joint was thickened about $\frac{3}{8}$ of an inch. No tissue was excised. The joint was washed out and closed. Recovery was uneventful. Fifteen days after the operation there was 90 degrees of voluntary flexion,

†Read before the Fulton County Medical Society.

and she was allowed to go home. When she left her general condition was excellent; was not nervous; had no abdominal pains; the knee did not hurt and she walked quite well. Off and on for several months, during which time she carefully dieted and exercised, there was now and then a return of the abdominal pain and pain in the knee joint, though recovery at the end of several months was complete.

This is also one of the early cases, exhibiting not only the evidence of early inflammation, but the presence of coagulæ in the joint, which, had they not been evacuated, would have constantly irritated the joint, keeping up the exudate within and the joint pains. The study of the stools and urine disclosed the usual evidence of chronic intestinal putrefaction. It illustrates also what we have often observed in these joint cases, in which the patient suffers profoundly from toxemia, that attacks of simulating appendicitis are common, as is also appendicitis itself.

Case 3.—Woman, 45 years old. Several years previous to the time that I first saw her, she had had attacks of sciatica which would confine her to the bed for a short period. Then the left knee began to give her trouble, so that in the course of time she began to have attacks of excruciating pain in the joint. A surgeon at her own home made a diagnosis of "floating bodies," and removed half a dozen of so-called "joint mice," which are cartilagenous bodies produced by the formation of cartilage in small polypi which drop loose from atrophy of the pedicle. This gave some relief, but the joint was still subject to attacks now and then. Often she would wake in the night and on turning over the joint would become locked, and she would be stricken with severe pain in the joint. She was obliged to walk with crutches. At the inner border of the patella there was something palpable which slipped under the finger when the joint was flexed and extended.

The joint was opened and a piece of cartilage, still hanging to a pedicle, half an inch long, was found at the site where something had been felt. This was taken out. The cartilaginous surfaces of the femur and patella were normal, but where the cartilage joined the osseous part of the end of the femur, there were minute osteophytes, about half the size of a match head, which studded this line. They were not large enough to produce any mechanical disturbance in the joint and were, therefore, let alone. The capsule of the joint was diffusely thickened, though not to any great extent. It was therefore not disturbed. The joint was closed, and she made an uneventful recovery. This patient

has been in good health, and with general care and dieting, is now in excellent condition. The only thing that has been done to her since the operation was to fit her with a belt for sacro-iliac motion, the latter keeping up a certain amount of back-ache. This patient's excreta showed positive signs of intestinal putrefaction.

This joint illustrates a little further progress of the process, at this stage being associated not only with evidence of thickening of the soft tissues, but with a hypertrophic process at the junction of the cartilage and the osseous portion of the bone.

Case 4.—Woman 45 years old. This patient had been subject to chronic arthritis for 25 years, and had visited the Hot Springs every year. Both of her knees were involved. She came under my observation for the reason that in attempting to cross the right leg over the left, the right knee became locked and she was unable to unlock it. She had a gastro-intestinal history. There were Heberden's nodes on the fingers. The locked knee was very much thickened and enlarged, and had a boggy feeling; two osteophytes could easily be felt. Likewise, too, one could squeeze under the finger in palpating, things that felt very much like varicose veins, the characteristic feeling of "fringes."

The joint was opened on both sides, and immediately that the capsule was slit there popped out into the wound a mass of worm-like fringes. There was a most intense congestion of the soft tissues. The capsule itself was $\frac{1}{2}$ inch thick, this thickness being made up of fibrous tissue. The joint was divided up into compartments by adhesions which ran across from the anterior to the posterior surfaces. The margin of the femur was studded with osteophytes, and the locking of the joint was due to the catching of a large osteophyte on the external condyle of the femur with a similarly situated osteophyte on the margin of the external tuberosity of the tibia. These were chiselled off and motion was again possible. The fringes were all excised. A plastic operation was done on the capsule of the joint after this fashion. The external fibrous capsule was separated, and the synovial membrane proper was separated from the sub-synovial mass of fibrous tissue which was carefully dissected up from the line of incision to the margin of the patella on one side, and from the incision to the attachment of the capsule externally. The two surfaces were then plastered together, reducing it in this way to the extent of its normal thickness and preserving the synovial surface intact. The recovery was uneventful, the joint, however, requiring massage and necessitating the use of a

brace for several months. She returned about a year and a half afterwards with no thickening, no pain and voluntary motion of about 70 degrees.

In this case we have exhibited further what may happen to the longer standing inflammations than in the cases previously described. One sees here a marked limitation of joint motion and the actual locking of the joint, the villi reported in the first case, having in this instance grown in size, varying in length from $\frac{1}{4}$ of an inch to 2 inches. One sees the greater length of time necessary to restore the joint to its usefulness; also the permanence of the result, even in the advanced cases, when the joint is freed from all of its impediments and again allowed to participate in its normal functions, this being motion without deformity and capacity to bear weight without pain. An interesting thing here was that previous to the operation the left knee, which was not operated upon, was regarded by the patient as being her "good knee," and when she returned for her last visit she stated that the knee upon which the operation was done and which had been the "dreadful knee," was now the good knee. She was, however, unwilling to have the left knee operated upon, though it needed it.

Case 5.—This patient had been subject to "chronic rheumatism" for many years, many joints having been involved. His toes were twisted out of shape, flexed and dorsally dislocated on the heads of the metatarsal bones. One ankle was swollen and both knees very much enlarged, boggy to the touch, presenting osteophytes and permanently flexed about 15 degrees. There was also palpable a hard mass. The right elbow was involved, being very much swollen. The fingers were enlarged. There was pain in the spine and under the shoulder blades.

The right knee was opened. There was fluid and coagulæ in the joint. There were numerous adhesions and a great mass of fringes which I exhibit to you here to show the formation and enlargement of the normal villi. The capsule was thickened and there were masses of fatty tissue which had formed in the upper part of the capsule just in front of the last two or three inches of the shaft of the femur. These masses were excised. There were, relatively speaking, craglike projections of bone and osteophytes standing out from the margin of the patella and the margin of the condyles. In the patella groove the surfaces were smooth as they usually are in the joint where there is present the gliding of two bone surfaces. The hypertrophic enlargement usually takes place at the margins of the joint, as spoken

of in the recitation of the above cases. The subsynovial tissue, dense scar tissue in nature, was removed after the method stated above. The hemorrhage was so great that it was necessary to gather up all margins of the incisions with through and through sutures, gathering up the blood vessels collectively rather than individually as the flow was mostly an ooze. The margins were then united. A small drain was put in the joint. There was a tremendous amount of serous ooze following the operation, but the joint recovered without any trouble.

This case illustrates the formation of fibro-fatty tissue between the capsule and front of the shaft of the bone as well as the formation, to an extreme degree, of osteophytes, fringes, polypi, adhesions, coagulæ and the outpouring of fluid. I am not able to state the result in this case, as the patient passed out from under my observation, not being willing to undergo subsequent operations on the other joints.

Case 6.—A lady with a gastro-intestinal history for twenty-five years. Several years previous to the time that she came under observation the left knee gradually swelled and went through a very acute inflammation, being very large and red, painful and flexed for a month. She was confined to her bed for two or three months. She was treated by an orthopedic surgeon in the north, the line of treatment being plaster-of-paris casts, burning with cauter, etc. At this time very little was known about knee joints of this type, and the treatment was the treatment then in vogue. When seen the joint had been permanently flexed somewhat for about two years. There was no fluid in the joint; there was no swelling except on either side of the patella tendon.

The joint was opened and there was a dense mass of fibro-fatty tissue, very vascular, on either side of the patella tendon. This was at the site at which the joint had been most painful. The surface of the external condyle had been eroded, and there was a flat place, larger than a quarter of a dollar, of ivory like consistency. The scar tissue was dissected out, the joint capsule being smaller then to this extent. Recovery was uneventful, though it was necessary to treat the joint for four or five months. This patient was so much improved that one year ago she traveled all through Europe, walking as tourists do through galleries and sight seeing. When first seen she was bedridden. There is about 70 degrees of voluntary motion present, but the joint cannot be quite straightened. She walks with a scarcely perceptible limp.

This case illustrates the erosion of the cartilage that occurs sometimes in the pro-

cess, as likewise the formation of dense scar tissue.

Case 7.—This patient gave a gastro-intestinal history existing for a number of years. Several years previous, the left leg had been amputated just above the knee on account of a tubercular(?) infection of that joint. During convalescence the left hip joint became ankylosed so that she had an ankylosed stump on that side. Several months after the operation the right knee became swollen, and when seen it was enormous, boggy, very much swollen below the knee and much atrophied above the knee. The right ankle was also very much swollen. She was emaciated, and the complexion had that sallow, brownish hue, which goes with intense albuminous putrefaction. The stools were very, very foul. She presented all the general signs of toxemia.

This joint was opened on either side of the patella. A double handful of angry, inflammatory tissue was removed. Wherever there was a crevice into which this tissue could protrude, it had formed. There was nothing nice about this operation; it was simply a hacking away of chronic, inflamed tissue, masses of fringes and polypi. The feature here which is presented and which is not presented in the other cases is this, that the lower end of the femur was so soft that the slightest pressure upon the cartilaginous surfaces of the end of the femur would indent it. It had the feeling as if the end of the femur were cystic. This was not disturbed. The joint was closed. A great deal of suffering followed the operation; every stitch hole abscessed. The stitch infections were attributed to the low vitality of the patient.

This stitch hole infection illustrates a point of extreme importance in the handling of toxic joints, namely, that these toxic patients all have lowered vitality and all are subject to inflammation of other parts of the body, than joints, as is evidenced by the persistent presence of bronchitis, trachitis, pharyngitis, nasal infections, dactylitis, colitis, appendicitis and most every form of -itis that one might mention. The clinical meaning of it is this—that previous to the operation on cases which present evidences of toxic inflammation, one should be extremely careful to delay the operation, if possible, until the patient shall be placed in a suitable physical condition to stand it. I have operated upon cases in the sixties, who, when they presented themselves for treatment, were in a state of extremely low vitality, and who, after they had been put on fermented milk and a soft diet and rested and slept in the fresh air for days or weeks as the case might be, until they were in good condition, their incisions would heal

with as little disturbance as a scalp wound made under the best aseptic technique.

I exhibit here two knee joints which were the portions of a leg amputated by Doctor Armstrong several days ago, from a patient who had been a sufferer from arthritis deformans for a great many years, the operation being necessitated by gangrene of the feet. These specimens show the most extreme destruction which takes place around the joint in long standing process. You will see that the joints are entirely destroyed, distorted and deformed, that there is hardly any dense bone at all, the shaft of the bone and the end being simply a fine shell containing a mass of fat, and the spongy bone structure as coarse and about as dense as mosquito netting. Quite likely the condition of affairs at the lower end of the femur in the case last mentioned was about as seen here, plus the presence of enormous masses of highly inflamed tissue between the femur and the tibia as described above.

Case 8.—The following case will illustrate the formation of tumors in the knee joint. This class of cases is not so frequently seen as those with minute polypi and fringes, but they do occur. This woman, about 38 years of age, had had attacks of "rheumatism" in the past which were usually severe. Several months previous to the time she was observed, she had an attack of "rheumatism" in the left knee from which the knee did not recover, and at the time when she first came under observation the joint was enormously swollen, full of fluid and very tense, so much so that nothing in detail could be made out by palpation. The swelling was chiefly above the patella. When the swelling is mainly confined to this locality it usually indicates the formation of a great deal of thickened tissue between the posterior capsular surface and the femur.

This joint was opened and about a pint of straw colored fluid removed. Loose in the joint was a tumor about one half inch long and one inch thick, oval in shape. This was evacuated. There were membranous adhesions between the surfaces of the joint, and the capsular space had been very much distended upwards so that the capacity of the joint was very much increased. At this site, at the upper border of the joint, there were masses of fibro-fatty tissue. This was not an isolated mass but had involved the capsule of the joint to such an extent that the upper part of the capsule was excised along with the mass. There were several small polypi which were also removed. The capacity of the joint was reduced by this excision of the excess in the upper portion, everything was sutured and the joint closed. Her recovery was

uneventful, with a normal degree of motion and function without pain.

Case 9.—This case was that of an extraordinarily stout woman who had been suffering with so-called "rheumatic gout" for a great many years, presenting spurs on the tarsus, and both knees being so extremely painful that she could not walk about the house, that she would wake in the night on account of this pain. The pressure of the bed clothes even caused sufficient pain to keep her awake. Her distress was extreme.

From both knee joints fatty tumors were removed which were attached to the joint surface by pedicles. These masses were not very large, one being about 2 inches long by $\frac{1}{2}$ inch wide, irregular in shape. A microscopic section showed lobules of fat with intervening fibrous tissue trabeculae in which numerous blood vessels ran, some with periarteritis and almost obliterated, and others showing a more recent periarteritis.

The interesting feature about this case was that she was rheumatic, using this word in the general sense, and that after the operation she would have attacks of acute pain in the joints now and then, which would always be relieved by purgation and anti-rheumatic remedies, these measures previous to the operation not having had any effect upon her at all. The case illustrates the formation of fatty tumors in the joint, and the relief afforded by operation and the hopelessness of general treatment when there are masses of tissue within the joint which can only be taken out through an excision. This group of cases illustrates quite well the condition of affairs most usually found in the toxic inflammations of the knee joint, and though there are a very much greater number of cases of this nature in the total number operated upon, yet these cases will serve to furnish the details of things found within the joint and the results to be obtained by operation. Of course, the operative procedures did not entirely terminate the treatment, in all instances there being a certain amount of post-operative treatment, varying in length of time from two weeks to one year. All that the operation can accomplish is to get rid of the products which, by their presence, are causing pain and interfering with the normal use of the joint. Subsequent to the operation it is necessary to utilize such measures as massage, manipulation, passive motion and apparatus to maintain the anatomical position of the joint while the leg is regaining its power of motion; to diet the patient properly and to maintain proper hygienic surroundings.

Case 10.—This case, in which there were several in the group, illustrates the forma-

tion of a good knee from a knee almost completely ankylosed from adhesions. This lady, a very large, stout person, stuck a pair of shears into the knee from which the joint was infected, this having lasted a number of months. At the end of this time the knee was bent almost to a right angle with extremely little motion present. She had considerable pain, particularly internal to the patella tendon when pressure was made at this site.

There was a mass of scar tissue just internal to the patella tendon which was removed by operation. While removing this, observation was made upon the character of the interior of the joint. The joint surface was entirely obliterated except the contiguous surfaces of the femoral condyle and the tibial tuberosity. The joint surfaces were adherent by a rather delicate grade of fibrous tissue. By manipulation, the patella was made movable, and by forcible flexion and extension and tenotomy of the biceps tendon, the amount of motion was increased. The joint was then sewed up. The subsequent treatment in this case consisted in the use of apparatus and massage, of hyperemia induced by superheated air. This extended over 14 months and at the end of this time she was able to walk without apparatus and had voluntary flexion of 45 degrees.

One other case in this group illustrates a feature which is rather uncommon. This joint had been obliterated by gonorrheal infection. There was about 10 degrees of motion which was perfectly free, but at the end of this motion the joint would suddenly lock as if two obstructions came in contact with one another. The skiagram did not show any bone interlocking, so it was finally concluded that the limitation of motion was due to the presence of an extremely short patella tendon. This tendon was split lengthwise and the two ends spliced after the joint had been forcibly flexed. At the end of three weeks passive motion was begun with the production of voluntary flexion and extension, sufficient to do away with the stiff-legged walk.

Out of seven cases of this nature, five were successful with the production of good motion of the joint without pain being experienced by this motion. The other two were failures.

I have operated upon one joint which presented bony ankylosis from so-called "rheumatism." The skiagram showed union between the femoral condyle and the tibial tuberosity. The joint was opened on both sides, a flap dissected from the under surface of the tissue, and the joint chiseled loose and the flap placed between the bone surfaces. The joint was then sewed up in a

slightly flexed position. Following the healing of the incisions there was slight motion, but considerable spasm when the joint was attempted to be moved. An anæsthetic was administered and flexion producing 20 degrees of motion in the joint while under the anæsthetic was obtained. This patient did not remain under observation, leaving the hospital one night with her belongings without saying "good-bye." I was never able to hear from her afterwards. It would have been extremely interesting to follow up this case as I believe that good motion could have been accomplished had she submitted to further after treatment.

Case 13.—This case illustrates a condition found in gonorrheal infection. This young man had both knees affected, having been observed after the disease had existed for about six weeks. The right joint was swollen and contained a small amount of fluid, as was evident by fluctuation, and the tissue on either side of the patella tendon felt boggy. The left knee was slightly swollen. It is of interest here to note that following urethral irrigation, the pain in the left knee would disappear, while it had no influence upon the right knee. It was decided that it was necessary to operate upon this joint.

The fluid evacuated was of a gelatinous nature, some of which looked as if it were softened coagulæ, being mushy in consistence and quite clear. The surfaces of the joint were, of course, inflamed, showing small enlarged villi, not sufficiently enlarged to be removed. The normal ligamentum mucosum was very much enlarged, both in length and breadth, and the pouches on either side of the patella tendon were masses of recently formed granulation tissue. Part of the ligamentum mucosum was excised. The recently formed inflammatory tissue was excised also, and the joint cleared of all fluid and closed without drainage. Recovery from the operation was uneventful. It took about three months to regain the normal motion in this joint, and when last seen there was only a slight limitation of the normal motion, and the joint was normal in size, there being no thickening present.

Case 14.—One excision may be of interest. This was an old tubercular knee which had been incised in Italy by a very distinguished surgeon in Rome. The bones had been wired together. In the excision which I did, I first took off a small amount from the end of the femur, hoping to get away from the diseased tissue. The saw passed through good tissue for the most part, yet it bisected one area about $\frac{1}{2}$ inch in diameter, with a cheesy centre. Wishing to get to a healthy surface, if possible, it was

sawed a little farther back, and though good areas of bone were passed, the saw passed through a small focus as before. Another level was tried and another with the same result.

This illustrates that in chronic bone infections which have been going on for years, there are foci scattered throughout the bone with intervening areas of good bone. The patient had been in a very much depleted condition and did not do well. The incisions healed, but his general condition was still bad. On account of this the leg was amputated about a month afterwards. The recovery of his health was very rapid, so that in two months he was ruddy and strong again. I think it illustrates that in the chronic bone infections of this nature, where the body at large seems to be suffering from the bad effects of the local disease, it is better to get rid of the disease entirely than to try to preserve the joint which will certainly be a source of annoyance, and the probable source of a more widespread disease.

There was one amputation in an old lady who had an inflamed knee, which was thought, at the time the joint was opened, to be a chronic toxic joint. Cultures showed staphylococcus aureus. The drainage which was established did not seem to relieve her of the general ill effect upon the body at large and amputation was advised on this account, though there did not seem to be, so far as the joint itself was concerned, any hurry for the amputation. That the amputation was wise was shown by the fact that the infection had extended up the thigh about five inches into the planes of the fascia between the muscles. Here again recovery followed rapidly upon the removal of the infected joint.

There still prevails in many quarters a feeling that operations upon the joints are to be dreaded through fear of infection, through fear of possible ankylosis of the joints. I desire to say that the cavities of the joints can be invaded with even greater freedom than any of the other closed cavities of the body, that when there is no pre-existing infection, you should not have the slightest dread of damage to the joint, and that increased motion is the rule rather than limited motion. I must acknowledge, however, that there is room for the display of the most varied grades of judgment, not only in the operative procedures that are done upon these joints, but in the subsequent management. I may say that in joint operations, without the most skillful judgment in the management of the post-operative treatment of the joint, there is liability of failure in accomplishing the restoration of the joint function.

For example—often times massage is extremely important during one week of the post-operative treatment, when the massage given at another week would do the joint damage and retard its progress. I may say that one must have familiarity with the personal characteristics of the joint. There is a something which is hard to describe which we can only know through intimacy with them, which enables one to be entirely conservative at one period of its management, and extremely radical at another period of its management, and only by the most careful attention to details in the management of them are they restored to usefulness.

The Physician and Education.*

By Charles S. Mangum, M.D., University of North Carolina, Chapel Hill, N. C.

The Doctor's degree is bestowed by institutions of learning in recognition of the highest attainment in some special line of endeavor. The one receiving such a degree assumes with it an obligation to maintain a certain standard of excellence, so that nothing he may do or may leave undone shall tend to cheapen this badge of his efficiency. Each man's life, when his work is done, will show in what manner he has lived up to this obligation; and it rests entirely with those who bear the degree of doctor of medicine to command respect for and confidence in their title among intelligent, thinking people.

In the past the obligation has been more than fulfilled, as the names of a host of the world's most famous men will testify; for the medical man of history, by his wonderful achievements and unselfish devotion to duty, has made of the title he bore a badge of honor. The responsibility for the present and the future is upon our shoulders.

Some of us are ripe in years and already crowned with honors; some are bearing the brunt of the day's work; while others look forward with all the enthusiasm of youth to the opportunities of the future; but all must wait for the judges of tomorrow to place us in a niche of fame or upon the long roll of those who have tried and failed.

If we are to live up to our heritage and retain the position of pre-eminence won by our predecessors, it behooves each one of us to do his full duty and strive for lofty ideals of service and true manhood, whether our sphere of action be great or small; for the life work of the lowly physician, isolated from all of his kind, is just as noble and often as far-reaching in results as that of his more fortunate brother who dwells in

an atmosphere of medical research and in constant touch with master minds. Though we work as individuals, we should never lose sight of the fact that our actions make for the honor or the discredit of the profession to which we belong.

We have been trained to solve the problems and to do the work of the present, and the body of men before me is evidence that the work will be well done. But the young men and women who are to fill our medical schools during the next few years will take up our tasks where we leave them, and upon their shoulders will rest the responsibility which now belongs to us. The problems they will have to face and the remedial agents they will have at their command are beyond the gift of man to foretell. It is our plain duty to see that they are prepared to assume this responsibility. Man's insistence that nature give up her secrets is becoming greater with every year, and as thought and research add to the sum of human knowledge, the medical profession must keep pace, for the sick man will always insist upon his right to receive the benefit of whatever will prolong life or relieve suffering.

No one's daily vocation takes him through so wide a range of human knowledge and experience as the doctor's. It is difficult to conceive of any knowledge that he cannot turn to practical account. The curriculum of the modern medical college covers almost the entire field of science, with the exception perhaps of geology and astronomy, and who would dare say how long these two may remain unattached.

The effort to meet the demands of scientific progress has caused us to forget and to neglect one of the fundamental principles of education, which is *progression*. The outcome is a condition of affairs in which the student finds himself helplessly wandering in a labyrinth of tasks, for which all too little time is allowed, and which he must undertake without previous training sufficient to develop the manual dexterity and the power of scientific reasoning which are necessary for their accomplishment.

If a teacher of mathematics were to take a pupil from a class in arithmetic and require him to master the calculus, one could hardly expect the pupil to distinguish himself, and yet this well illustrates the conditions in many of our medical schools.

The consequence is that even the brightest men are apt to acquire a mere smattering of many sciences, but a deep and abiding knowledge of none; while many a man who might have become an honor to his profession is overwhelmed with discouragement and gives up the hopeless task.

We cannot stop. We cannot be content

*An oration delivered before the Medical Society of the State of North Carolina, June, 16, 17, 18, 1908.

with what we are or what we have been, great and glorious though this may be. The progress of events is not in our hands to control. The very nature of our mission forces us, whether we will or not, to the very forefront of scientific achievement. If we are to fulfill this mission in the future, as we have in the past, it is incumbent upon us to see that those whose preceptors we are shall receive such training as may fit them for the work of the future, so that "what the father found glass and made crystal, the son may find crystal and make pearl."

The greatest weakness in the present system of medical education may be found at its beginning. Students, whose training has in no way fitted them for the courses prescribed for them, are permitted to begin the study of medicine, only to realize, when too late, the immense advantages of which they have been deprived. And it is our fault, for they are in ignorance of what is before them, while we know.

The day has passed when the mere collection of a mass of facts may be considered a medical education. The intelligent patient demands that the physician shall be able to reason, and that he shall be trained to think logically and to reach accurate decisions before he is granted license, and not leave too much to be learned through "experience." The patient and long-suffering public is beginning to rebel at the consequences involved in its share of this "experience"—so valuable to the young practitioner.

The American Association of Medical Colleges, realizing the present weakness and foreseeing the future needs of the profession, has sent out a call to all medical schools to take a step forward in the elevation of the standards of medical education, and require of their matriculates such previous training as may enable them to pursue their studies with a greater degree of thoroughness and some hope of larger results.

This is no young man's movement, but one inaugurated and led by the oldest, wisest, and most experienced thinkers in the profession. From all over the land the schools, and among them those of North Carolina, have responded to the call, and now they look to the profession, whose servants they are, to uphold and approve, for no public health movement in a State can be of greater importance than that directed toward securing high standard medical men.

The public demands of the doctor that he repair the maimed body and prevent or cure disease, and our teaching, our thoughts, our councils all centre upon this paramount duty.

But the mission of the doctor goes further.

One of our great teachers has said that "a physician may possess the science of Harvey and the art of Sydenham, and yet there may be lacking in him those finer qualities of heart and head which count for so much in life." Unless a physician realizes that his patient is not a mere pathological problem, but a fellow mortal, endowed with all of human nature's weakness and frailty, and can judge with charity and temper his ministration with something of human kindness and sympathy, he misses what is highest in his calling and becomes another mechanical device to be catalogued and called upon only when unavoidably necessary. The old family physician, who may within a few years, if the present regime continues, be known only as a character in story or legend, owes his position of trust and affection less to his professional skill than to his qualities of heart and head which make him both counsellor and friend.

The modern student of medicine, working with science, in science, for science, is in danger of becoming callous to all feeling of sympathy, until he comes to look upon poor human flesh as a mere adjunct to the laboratory, a never-failing field for fresh problems, and without the findings of the post-mortem, the solution of the problem is never complete and the requirements of science remain unsatisfied. Let us hope that it may never become unscientific to get well.

As we mould the growing mind, or labor to increase our own efficiency, we should never lose sight of the ethical and the humane, but strive for knowledge, not only of disease and its cause, but of ourselves.

The physician's interest in education is not limited to the making of medical men, for ignorant obstinacy and superstition are more powerful enemies even than the diseases he combats. Without an intelligent public, realizing and appreciating the value of health laws, the doctor is handicapped in his work and his best efforts often rendered futile. The law-makers have realized this and have required that the school children shall be taught the principles of physiology and hygiene. The school teachers of the State, with a devotion to duty so characteristic of their calling as not even to excite comment, have undertaken the task, but few of them have had opportunities to fit themselves for the work, and hence the results have not been satisfactory. Every physician should be a teacher in his own community. Give to your school teachers who have in their immediate care the training of the children the advantage of your practical knowledge of physiology, infectious diseases, and the laws of hygiene and quarantine, and you may safely leave the rest to them. We will have in another gen-

eration a citizenship that will be an ally and not a hindrance to the health officer, and will do more to elevate the standards of public health in our State than all the laws ever passed.

North Carolina possesses a State Board of Health which is both energetic and efficient. Through their efforts a great deal of helpful legislation has been enacted and through their publications and their personal teaching the people have been put in possession of much useful and practical knowledge.

But North Carolina's unofficial board of health should comprise every man or woman who possesses a license to practice medicine, and not until this is so can the wise plans of our leaders bear full fruit. Health laws are not uniformly enforced, nor can they ever be until the people are taught simple medical common-sense, and the responsibility for this rests upon the individual members of the medical profession.

Now, gentlemen of the Medical Society of the State of North Carolina, let us go back to take up again the day's work, fully resolved to be true to our heritage and give to our children something better and higher and nobler than we ourselves have received, and by thus adding to the sum of human happiness, build for ourselves monuments of living stones.

Maternal Nursing.*

By Dr. W. W. McKenzie, Salisbury, N. C.

Moralists and obstetricians agree in urging the importance of the mother nursing her infant. As a rule she thus best secures her own and its health, she obeys nature's laws and designs, promotes the closest mutual attachment, and has an important influence in fashioning the first mental and moral development of her offspring.

The prevalence of wet-nursing has been said to be the proof of a people's decline. Many writers on this subject state that the ability of the mother, particularly among the well-to-do, to fulfill this most important function is surely decreasing. This may have been a true statement a decade ago; at the present time, however, I am sure it is erroneous. In my own medical practice I have seen a change for the better, particularly during the past six years. The young mother of today is better able to nurse her offspring than was her sister 5 or 10 years ago. I attribute this to the fact that the youth of the present day are more vigorous, more nearly normal individuals than were these of a decade ago. The change which

enables more mothers successfully to nurse their infants is due to two causes—more vigorous fathers and mothers and more vigorous offspring. Following this line of reasoning, the more normal the mother, the better able is she to perform this normal function. That this is true is due to the fact that growing girls and young women are leading more hygienic lives than formerly. The making of golf, bicycles, and horse-back riding, automobiles and boat popular and fashionable—in short the taking of girls and young women out of doors and keeping them there a considerable portion of the day has worked a marvelous change for the better, both physically and mentally.

A neurotic mother makes the poorest possible milk producer. Proportionate to the population, there are fewer neurasthenics among young women today than there were ten years ago, and I think there will be still fewer ten years hence. It is a fortunate thing for the future of the human race that the young woman has transferred her allegiance from the crochet and embroidery needle to the golf club and the like. It may be said that our argument holds only with the wealthy or the well-to-do.

Imitation is one of the strongest characteristics of the human race, and this tendency in America to out-door hygienic living pervades all classes.

Food is better prepared and better selected owing to increased knowledge on the part of the people as to what constitutes proper nutrition. The food and care of the growing girl have most intimate bearing upon her future life, and if she is to be called upon to perform the most important function of womanhood, she surely has the right to demand that she receive during her girlhood proper which has heretofore too often been denied her.

Parents, no matter what their stations in life, are glad to do what is for the best interest of their children when it is made clear to them. It is our duty to take parents into our confidence and explain to them the reason for the line of action advised. When they are taught the reason for such procedure they are far more apt to follow them.

One of the chief requirements of a nursing woman being that she shall be mentally normal.

There are few conditions in which we are called to act so variable and so uncertain as in the production of breast milk. The most successful nursing age is between the twentieth and thirty-fifth years. I have, however, seen it successfully carried on in a girl 14 years. Some mothers will be able to carry on the nursing for only two months; others three, five, seven and nine months.

*Read before the North Carolina State Medical Society, Winston-Salem, N. C., June, 1908.

It is extremely rare for the breast milk to be sufficient for a child after the ninth month.

The following can be laid down as nursing axioms: A diet similar to what the mothers were accustomed to before the advent of motherhood should be taken. There should be from three to four hours spent daily in the open air with exercise which does not fatigue. One bowel evacuation daily. There should be at least 8 hours sleep out of every 24.

There should be absolute regularity in nursing. There should be no worry and no excitement. The mother should be temperate in all things.

Signs of Successful Nursing:—The child shows a gain of not less than four ounces weekly. This is regarded as the minimum weekly gain which may safely be allowed. Where a nursing baby remains stationary in weight or makes a gain of but two or three ounces a week it means that something is wrong, and it will usually, but not invariably, be found in the milk supply. When a baby is nursed at proper intervals and the supply of milk is ample and of good quality, it is satisfied at the completion of the nursing. If it is under three months of age, it falls asleep after ten or twenty minutes at the breast. When the nursing period again approaches, he becomes restless and unhappy, crying lustily if the nursing is delayed. When the breast is offered he takes it greedily. The stools are yellow and number from two to three daily. The weekly gain in weight under such conditions is usually from 6 to 8 ounces.

Signs of Unsuccessful Nursing:—When supply of milk is scanty the child remains long at the breast and cries when he is removed. He shows signs of hunger before nursing hour arrives.

A cause of failure in feeding, and probably a most frequent cause, is a scanty milk supply. The chief nutritional elements in mothers milk are fat 3 to 4 per cent., sugar, 7 per cent., proteids, 1 to 1.5 per cent. Failures may be due to a marked disproportion of these elements which may cause sufficient indigestion and resulting loss in weight to necessitate a discontinuance of nursing. Then there may be a high fat from 5 to 6 per cent., or very low fat from 1 to 1.5. In the high fat cases there will usually be diarrhoea with green watery stools. Child strains a great deal and there are green stains on many of the napkins, also regurgitation or vomiting of some material. The fat globule may be readily made out if the vomited material is placed under a low power microscope.

Low fat means deficient nutrition and may cause constipation. Sugar is rarely a

cause of trouble in nursing a baby. It seldom varies, ranging from 5 to 7 per cent. in the great majority of breast milk.

Young children further, have a marked toleration for it. The proteids of mothers milk is the most frequent cause of nursing difficulty. Like the fat, it may be so decreased that nutritional disorders may be induced in the patient, or it may be very much increased, the latter being usually the cause of colic or constipation in otherwise healthy infants. In such infants curds may be found in the stools, the passage of which is always accompanied by a great deal of gas. The milk may contain the normal percentage of fat, sugar and proteids, but be scanty in amount. Instead of the four to five ounces to which the child is entitled, he may get but one or two ounces. Whether or not the quantity is sufficient can be determined by weighing the baby before and after each nursing for twenty-four hours. One ounce of breast milk weighs practically one ounce avoirdupois. The quality or strength is determined by an examination of the milk itself. Before nursing, the child is put on the scales without undressing, and the weight noted. He is allowed to nurse 15 minutes. He is then removed from the breast and weighed. A child under one week old should gain 1 to 1½ ounces. At three weeks of age, 1½ to 2 ounces; four to eight weeks, 2 to 3 ounces; eight to sixteen weeks, 3 to 4 ounces; sixteen to twenty-four weeks, 4 to 6 ounces; six to nine months, 6 to 8 ounces; and nine to twelve months, 8 to 9 ounces. Stationary weight or loss in weight with a dissatisfied child usually means defects in quantity, which are readily proved by the weighing.

To be fed at the breast may also cause the child to suffer from an excess of good milk, in which event there will be vomiting or regurgitations, usually associated with colic. When this overfeeding continues, dilatation of the stomach develops, vomiting becomes habitual, the child loses in weight, and the breast milk is said not to agree, and often, unfortunately, the baby is weaned. This has been the outcome in scores of cases. When there is habitual vomiting and colic in a nursing baby, two things are to be done, the baby must be weighed before and after nursing and the milk must be examined.

When it is found that the breast milk is too strong or too weak, or when the normal ratio of fat, sugar, and proteid are not maintained, it may be possible to increase either the fat or proteids when desirable. The heavy milk will usually be found in mothers who are robust, who eat heartily, and who take but little exercise. In such a mother the persisting of a plain diet, allow-

ing red meat but once a day, discontinuing the malt liquor or wine, and directing that she walk a mile or two a day, will frequently bring the milk to digestible proportion. However, in some cases they will not be successful, and the colic, constipation and vomiting continues, even though the quantity obtained at each nursing is within normal limits.

In some mothers it will be impossible to change the mode of living, except perhaps to the discontinuance of alcohol. When such conditions prevail, the mothers milk may be modified by giving from one-half to one ounce of boiled water or plain barley water before each nursing. One teaspoonful of lime water added to one ounce of water before nursing has made the breast milk agree when otherwise it would have been impossible.

When the milk is deficient both in fat and proteids a diet composed largely of red meat, poultry, fish, rye bread, or whole wheat bread, oatmeal, corn meal, with two or three pints of milk daily, will often be followed by an increase of both fat and proteids. The use of alcohol in moderate amounts, in the form of malt liquor or wine, will usually increase the fat. Disappointment in improving the quantity or quality of breast milk, however, is frequent. Very few of any mothers are able to successfully nurse their infants after the twelfth month.

Material condition under which nursing is forbidden:—When the mother has tuberculosis in any of its various forms or manifestations, whether it involves the glands, the joints, or the lungs, breast feeding is to be forbidden. In epilepsy and syphilis nursing is forbidden. In nephritis and malignant diseases of any nature, and in chorea, nursing should be discontinued.

Women who are rapidly losing weight should not be allowed to continue nursing their infants. In case of serious illness of any nature such as typhoid fever, pneumonia, or diphtheria, and upon the advent of pregnancy, nursing should be stopped.

Puerperal Eclampsia.*

By E. F. Strickland, M. D., Bethania, N. C.
Mr. President and Gentlemen of the Medical Society of the State of North Carolina:

In answer to a request coming from the secretary of the Society and from the chairman of the Section on Obstetrics, to present a paper at this meeting, I stated that it would be my pleasure "to hear rather than to be heard" on this occasion.

However, yielding to a sense of duty, I ask you, in the same spirit, to hear me dis-

cuss, briefly, that old, old subject, though ever new and of the keenest interest to the obstetrician and general practitioner, viz., "Puerperal Eclampsia."

Puerperal eclampsia is an acute disease which may occur before, during or after delivery. As its pathology is more or less unsettled, its etiology theoretical, its treatment is largely empirical. Without recounting the varied and many theories advanced, both old and new, concerning its nature and etiology, suffice it to say that it is now generally conceded, I believe, that auto-infection during the pregnant or puerperal state is responsible for the condition,—the eliminative powers of the kidneys and liver being principally at fault.

The functioning powers of these organs may be impaired primarily as a result of accumulating toxins due to pregnancy, or the pregnancy may be added, as a complication to a pre-existing parenchymatous degeneration of these organs. A true nephritis may exist or may not. Albumin is usually found in the urine, casts frequently.

The pathological changes in the liver are now regarded as more characteristic and constant than those of the kidneys. Hemorrhagic hepatitis, fatty degeneration and disorganization of the liver cells are found on post-mortem examination.

That pleural births, a nervous temperament or heredity are predisposing causes my own experience does not confirm.

I find that primipara are more frequently attacked than multipara. Nature's ineffectual effort to rid the system of the excessive materies morbi in consequence of the impaired and sluggish functioning powers of the excretories and the stagnant channels of elimination, is an all sufficient cause for the gradual development of the eclamptic condition, or the sudden out-burst of the fit itself. The premonitory symptoms are œdema of the lower extremities, hands and face; headache; dizziness a "boring pain in the pit of the stomach;" disturbed vision, sometimes amounting to blindness; a capricious appetite; usually constipated bowels; diminished flow of urine which usually contains albumen.

Whether these symptoms come as the rattle of the rattle snake, and as surely speak of danger ahead, or whether with the suddenness of the spring of the cobra, and without warning, the attack is the same, and the struggle between life and death is at hand.

The spasm once witnessed can never be forgotten and there is no mistaking the diagnosis. They last, usually, from one to three or four minutes, when there is a complete relaxation of all the muscles for an interval varying from a few minutes to a

*Read at the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C.

few hours when there is a return of the spasm, if the condition is unabated.

In the intervals between the attacks the patient is in a state of partial or complete coma, depending upon the severity and the number of the attacks. The number of spasms may vary from one to one hundred.

Usually there are from six to thirty. Death is liable to occur during a convulsion or in an interval between the attacks,—in the former from asphyxia, in the latter from the combined effects of asphyxia and exhaustion.

It has been reckoned by worthy authors that one per cent. of pregnancies result in eclampsia; that 25 per cent. of these prove fatal to the mother and 50 per cent. to the child.

The per cent. of cases actually occurring, and this large mortality rate have been much reduced of late years by a better understanding of the disease and the application of a more rational and active plan of treatment than hitherto was practiced.

The treatment will be spoken of under two heads, viz.: 1. Prophylactic; 2, active. In no disease is the maxim more true, perhaps, that "an ounce of prevention is worth a pound of cure," than in puerperal eclampsia.

The urine should be frequently examined during the latter months of pregnancy for the detection of the presence of albumin, and albuminuria in connection with the premonitory symptoms already described should lead to the employment of a prophylactic treatment at once.

The diet should be restricted to milk, if possible; the skin should be kept active by hot baths, hot packs and friction; systematic open air exercise should be instituted; the bowels should be kept in a lax condition by the administration of Rochelle or Epsom salts with an occasional calomel purge; the kidneys should be kept active by the administration of an abundance of the best and most reliable of all the long list of diuretics, viz., plain simple water; infusion of digitalis may also be given if desired. Give Basham's mixture or Tr. of the per chloride of iron, for their diuretic and tonic effect.

This is all that can be done in the way of prevention, and, if in spite of this, the attack develops before, during or after delivery, we are brought to the employment of what I have designated as the "Active treatment." Chloroform inhalation should be practiced to lessen the severity and frequency of the convulsions. Venesection should be employed to relieve arterial tension and lessen the pulse rate. Morphine in one-fourth grain doses should be admin-

istered hypodermically and repeated as indicated.

Chloral in thirty grain doses may be administered per rectum, and repeated if necessary.

The attack occurring prior to delivery is usually amenable to this plan of treatment and the patient will go on to term. If the case is intractable, however, pregnancy should be terminated by dilating the os with the best dilator ever used, namely, the fingers and thumb of the practiced hand, or one of the various instruments used for this purpose, than which none is superior to the invention of our own Dr. Lott of this city; the application of the forceps and the complete emptying of the uterus.

The attack coming on during labor should be hastened by the same mechanical means, for my experience teaches me that delay here is dangerous to the mother and eminently so to the child, and that nine times out of every ten the attack will continue until labor is terminated.

In cases occurring subsequent to delivery the active medicinal treatment already outlined should be practiced, followed by the eliminatives and tonics which, also, have been fully described.

Before closing I wish to report the following interesting cases which have a practical bearing upon this paper:

Case 1.—On June 10th, 1907, I was called to see Mrs. —, primipara, at full term, who was suddenly seized with convulsions soon after labor began. She had six convulsions in eight hours, at the end of which time she was delivered of a healthy child by the natural efforts.

The last convulsion immediately preceded the termination of the second stage of labor. Her recovery was uneventful and complete. There were long intervals between the convulsions, during which times the patient was rational.

Case 2.—On August 8th: 1907, was hurriedly summoned to see Mrs. —, multipara, who on the morning of the fourth day after confinement suddenly complained of being blind and in a few moments had a convulsion. She had four spasms within the next few hours, only partially regaining consciousness in the intervals, passed into a state of coma from which she did not rally for several hours, but made a complete though rather tedious recovery.

Case 3.—On reaching Mrs. —, primipara, to whom I was called on January 15, 1908, I found her in convulsions. The history elicited was to the effect that the period of gestation was complete, but that there had been no complaint of labor pains. The first thing complained of was an acute pain in the region of the stomach a few minutes

later; the patient said she was blind, and immediately was seized with a convulsion.

On examination there was no dilatation of the os uteri. On close observation I perceived that, notwithstanding my efforts to control the spasms, they were occurring with systematic regularity about every twenty to thirty minutes. Deciding that labor had already begun, and that the convulsions were synchronous with the pains, I took up the task of artificial dilatation and delivery which I was able to accomplish after the lapse of several hours and the occurrence of as many as twenty convulsions.

After an instrumental delivery of a still-born baby there was not another convulsion. The mother was in profound coma in the intervals after the first convulsion, and did not return to consciousness for several hours after delivery. Her recovery was slow and tedious and reached through a period of ninety days. There was some oedema of feet and puffiness of face, indigestion, disturbed vision, headache, anæmia and casts in the urine, in greater or less quantity, throughout this long period of time.

She is now in perfect health. No analysis had been made of the urine in any of these cases prior to delivery, as there had been no subjective symptoms, and therefore prophylactics were not employed.

The plan of treatment followed in these cases, with the resultant happy issues, is fully set forth in the body of this paper.

An Interesting Case of Stone in the Bladder.*

By J. M. Parrott, M. D., Kinston, N. C.

On February 21st, 1906, by invitation before the Onslow County Medical Society I read a paper with the title "Suprapubic Cystotomy—A Study." In this paper I reported a case which had been in my care. From this paper I quote extensively. My excuse for discussing it again is because of the developments which have arisen since it was first reported.

"In the spring of 1907 I was consulted by Dr. S., age 58. Fifteen years prior to that time he began to suffer from a traumatic stricture of the deep urethra. When first seen he was much emaciated and presented the usual symptoms of urethral stricture of the most aggravated type. * * * After careful treatment by dilatation the stricture was somewhat relieved. The vesical symptoms, of which he complained a great deal, continued and I diagnosed cystitis. My notes of that time say, 'When

seen he presented well marked symptoms of vesical calculus, though the stricture was too tight to permit a confirmation with bougie or stone searcher.' Altogether he was a very bad subject for operation. He was a physician. He held to the stone in the bladder diagnosis and insisted on an operative procedure.

I elected to do a perineal section because of the existing urethral stricture. After entering the bladder two large stones were found. Because of certain circumstances then existing I could not remove the stone via perineum and at once did a suprapubic cystotomy. The two stones first found were removed and a third one discovered imbedded in the posterior bladder wall. A drainage tube was introduced into the suprapubic wound, and on the sixth day after the operation a violent hemorrhage began which continued more or less freely and intermittently for two days, being finally checked by through and through irrigation with very hot water. With this exception he made an uneventful recovery.

In March, 1902, I again removed a stone suprapubically. This time he made an uninteresting and rapid recovery.

On January 30th, 1906, I did a third suprapubic section and removed another stone. On the fifth day after this operation he was sitting up and on the seventh out visiting. In my paper, to which I have before referred, I predicted the formation of another stone within a year or two from that time (February 27th, 1906.) My prognosis has come true. On March 31st, 1908, I again did a suprapubic cystotomy and removed a stone weighing about 600 grains; he soon recovered and was enabled to walk on the streets. Two weeks after the operation the wound had entirely healed. The last two operations were done with local anesthesia, except the administration of a few drops of chloroform at the close of the seance to facilitate the delivery of the stone by relaxing the recti abdominales.

Quoting from my paper of February 21st, 1906, "This to me has been a most interesting case and is worthy of close study. It presents for consideration six points of interest. First, he is and always has been a man of good habits. His personal history is negative, especially as to renal colic or any manifestation of lithemia, while he has always lived an active outdoor life, yet his exposure has been nil. His figure is spare and aside from this vesical trouble and traumatism his health has always been good.

Secondly, the indications calling for the operation were three in number; stricture, which demands a perineal section, a very violent and infective cystitis due in a large

*Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June 16-18, 1908.

measure to dirty bougies, and the stones. The perineal section was done at first because of the stricture. It has never been a popular operation with me and I had a splendid opportunity in this case to study the two together.

This leads me to consider the third point of interest, viz.: That suprapubic cystotomy in the majority of instances is decidedly preferable to perineal section. When a case presents itself in which the bladder should be opened the first question which naturally presents itself is which operation is indicated? The answer must be made in accordance with the conditions presented in a given case. Suprapubic cystotomy is unquestionably the preferable operation for foreign bodies, tumors, and chronic cystitis, but is it better, all things considered, than the low operation for stone in the bladder? I believe it is. * * * I believe a compilation of statistics covering the last ten years would be decidedly favorable to suprapubic cystotomy. "There are unforeseen conditions which may arise during and after the operation which give the high method a great advantage. When hemorrhage occurs after the operation, as it did on the sixth day in the case reported, it can be easier controlled than it could be possibly should it occur after perineal section."

"It is true that often one can form approximately a correct idea of the size of the prostate by rectal palpation, etc. Still in concentric prostatic hypertrophy, this pre-operative idea is crude. Hence in these cases the advantage is decidedly in favor of the suprapubic method. Should the stone prove a large one (and who can measure its size before going into the bladder) as in the case under study the surgeon then in that event would be forced to go above the pubes or else crush a stone, and thus add a lithotomy to the perineal section. * * *. By perineal section it is possible to overlook an imbedded stone even after careful digital exploration. This occurred in my case, but fortunately I discovered it after opening the bladder above.

Bryant says, "The method (suprapubic) permits of a complete inspection of the bladder, obviates all danger of injury to the structure of the neck of the organ and establishes a wound in a favorable sight for cleanliness. He further says 'Irrespective of the foregoing (statistics quoted by him) results it should not be overlooked that one is likely to succeed best—other things being equal in the use of the method of practice with which he is most familiar.' In the case under consideration it succeeded after perineal section failed, it met every indication * * *. The violent cystitis which unquestionably developed independ-

ent of the stone and from outside infection could have been managed better by the higher operation. The hemorrhage to which reference has been made could not have been controlled by and through the perineal section as by and through the high opening."

"The fourth point of interest is the operative method pursued. The perineal section was the classical lateral operation and needs no comment. The suprapubic section was strictly according to the rules * * *. With the first operation on the patient under discussion I used the rectal bag and dilated the bladder with eight or ten ounces of boric solution. After the first and in the second and subsequent operations I simply dilated the bladder and did not inflate the rectum."

"Strange to say I found but few adhesions in the space of Retzius at the second operation, but the bladder was found united to the abdominal wall at the third seance. So that while the second was a typical suprapubic cystotomy the third was not more difficult than opening an abscess." The fourth suprapubic cystotomy as the second and third through the original scar, while it was not so simple as the third, was not as difficult as the first or even the second. At the time of the fourth operation a few weeks ago the patient was 69 years old.

Again quoting from the paper presented to the Onslow County Medical Society, "The fifth and most interesting complication in this case was and is the recurrence of the stones. Did the urethral stricture contribute to the stone formation in the original instance and has its contributory influence been felt in the production of subsequent stones? Decidedly, yes. Given a possible constitutional tendency to stone formation (which is not apparent in this case), and an urethral stricture will prove a powerful etiological factor. The stricture may produce an actual dilatation of the entire bladder wall or some section of the same. In this way it may add largely to the amount of the residual urine. The bladder of this patient presents a strikingly large pouch or cul-de-sac in its lower and posterior wall. In this a large quantity of urine remains at all times since it cannot be entirely emptied by the finger and carefully irrigated many times after each operation and the writer is very positive that no stone remained.

"The last complication to which I desire to call your attention was the hemorrhage on the sixth and seventh days after the first operation. A stone deeply imbedded in the posterior wall was removed at the first operation and necessarily a raw surface remained. I left the drainage tube in for

some time, and it was in situ when hemorrhage occurred. It is my present opinion that the tube by friction produced an ulceration of the mucous membrane, perhaps, and more than likely, at the site from which the imbedded stone was removed. There is really no necessity for leaving a tube in the bladder longer than 48 hours, unless there is an infective cystitis, and then in that case an olive pointed tube or Senns syphonage tube should be used."

I have used usually prescribed and generally recognized constitutional treatment together with vesical irrigation as prophylactics in this case with no appreciable result. I predict the formation of another stone in 18 months or two years. His stricture has caused no special inconvenience since the first operation. He has kept this well dilated and has used reasonable care with success to prevent infective cystitis. Would it be better to try to remove the vesical cul-de-sac by surgical procedure, if it could be done, which I doubt, and thus rid him of a probable causative factor, or run the no doubt risk of another stone if the pouch be an etiological element? I am of the opinion that the latter is decidedly the better course to pursue.

Coxa Vara.†

By Wm. Moncre, Raleigh, N. C., Instructor in Orthopaedic Surgery University N. C., Medical Department, Assistant in Surgery Leonard Medical School.

I present this subject with report of a case; first, on account of the rarity of the condition and second because of its importance in the diagnosis of all hip-joint affections.

We do not find a great number of cases of Coxa Vara reported, but it does occur often enough to become an important factor in differential diagnosis of coxitis.

In regard to the etiology and pathology of this affection I may say that cases have occurred in the course of acute osteomyelitis, osteomalacia, rickets and otitis deformans. A certain number results from green stick fracture of the neck. Trauma may also operate in the production of coxa vara when we have a complete fracture of the neck uniting with shaft at a right angle or less-vicious union.

There is a group of cases that arises without any assignable cause other than softening of the bone from undue hyperæmia accompanying very rapid growth in adolescence.

Given one of the above causes, we have the normal resistance of the neck of the

femur reduced until it is no longer able to bear the strain of body-weight. It then bends downward until the neck and shaft form a right angle or less, thereby elevating the trochanter and considerably shortening the limb.

With age and sex we find normal variations in the angle between the shaft and neck of the femur. When the angle becomes a right angle or less, marked symptoms of deformity appear and we term the condition coxa vara, in contradistinction to coxa valga, where the axes of the neck and shaft approach a straight line. The condition is essentially one of growing bone and may affect one or both legs. It seems to be met with oftener in males than females.

Symptoms.—The onset is usually insidious, without symptoms until the deformity is well advanced. There are very few subjective symptoms, and when they are present they consist chiefly of pain and discomfort in the hip-joint with a disinclination to use the limb. When the condition is unilateral the shortening is very noticeable, varying from one-half to two inches. The trochanter is well above Nelaton's line.

When the affection results from epiphyseal separation, we may expect the shortening to become more marked as the individual grows older.

Motion in the hip joint is limited chiefly in abduction, because the trochanter is driven against the rim of the acetabulum or the surface of the ilium just above it. After excessive use of the limb in its deformed position, the irritation may be sufficient to give rise to moderate muscular spasm resulting in flexion and external rotation. The shortening causes a most decided limp.

According to the forward or backward bending of the neck of the femur, we get eversion or inversion, of the foot. Sometimes in unilateral cases we notice lateral curvature of the spina.

Diagnosis.—This is usually not difficult and depends largely on the examination. When we find the trochanter well above Nelaton's line, shortening by comparison with the sound side and limitation of motion in abduction and rotation only, an absence of effusion or other inflammatory symptoms, we can safely make the diagnosis of coxa vara. A radiograph will always make the diagnosis positive.

Bryant's triangle will locate the shortening in the neck of the femur. When the condition is bilateral the diagnosis is more difficult and may have to depend entirely on the radiograph. In its incipency tubercular hip-disease may be confused with coxa vara. In "hip disease" the subjective symptoms are always more marked and

†Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June, 1908.

motion is restricted in all directions—the nerves supplying a joint supply the muscles surrounding that joint. The limitation of motion in "hip-disease" is due to muscular rigidity, while that of coxa vara is mechanical from the elevated trochanter impinging against the ilium.

The shortening of "hip-disease" is only apparent until very late in the process, but that of coxa vara is actual, and Bryant's triangle demonstrates the fact that the shortening is in the femoral neck. Coxa vara may complicate hip disease in its later stages when the bone becomes "worm-eaten" and thereby unable to sustain the weight of the body without bending.

Congenital dislocation of the hip may also be mistaken for coxa vara. In congenital dislocation the head of the bone is not in the acetabular cavity and can be found in an abnormal position. In coxa vara the head of the bone is in the acetabulum and the trochanter moves through a greater arc in rotation. The reverse is the case in congenital dislocation.

Prognosis.—This varies with the etiology, but in general is very good as to restoration of function. After the bone becomes ossified in a deformed position we cannot expect to get improvement without some form of operation.

Treatment.—If the case comes under observation early when the bone is soft and yielding the first indication is to remove the body weight with crutches or apparatus. When it occurs in the course of a general disease as rickets, in addition to the constitutional treatment, it is necessary to maintain forced abduction in a plaster spica bandage.

Regardless of the etiology, when the bones are no longer pliable, some form of operation is necessary. Linear osteotomy seems to offer the best prospect of correcting the deformity and restoring normal abduction to the limb. In order to avoid entering the joint cavity, section of the bone is made just below the trochanter minor.

Cuneiform osteotomy has two serious objections: First, loss of bone followed by shortening, and second the greater amount of tissue dissection necessary to expose the bone.

Report of Case.—L. H., (col.) age 12 years, St. Agnes Hospital, Raleigh, March 15th, 1905. Well nourished healthy child, complaining of nothing except an aggravating limp. She has not had rickets nor any injury. Mindful of the fact that fracture of the neck of the femur is more common in the young than is generally supposed, the history was carefully searched for trauma, but without avail. Previous to December last nothing unusual was noticed,

the child appearing normal in every respect. Since that time a gradually progressing limp has been noticed. There has been practically no pain nor discomfort in the joint.

On examination there was no difference in the circumference of her limbs, but a shortening of two inches on the left side. Bryant's triangle demonstrates the fact that this shortening was in the hip. There was slight eversion of the foot. The trochanter major was some distance above Nelaton's line. The gluteal fold on the left was more marked than on the right. Abduction was markedly limited by the elevated trochanter striking against the ilium. Rotation was very slightly affected. The trochanter moved through a much greater arc than on the right side. Effusion and other evidence of inflammation in the joint were absent. Other than limitation of abduction and rotation, there was no interference with joint-motion. Muscular spasm was entirely absent. All other bones were normal and did not show evidence of previous rickets. The diagnosis of coxa vara was made and confirmed by a radiograph which shows the condition perfectly. Under ether a subtrochanteric linear osteotomy was done, the limb strongly abducted and maintained in plaster. The plaster cast had to be reapplied four times, because by her carelessness she soiled and ruined each cast with urine.

During the operation, nothing abnormal in the texture of the bone could be found.

At the end of the seventh week the last cast was removed and firm bony union was established. On measurement the shortening was reduced from two inches to one inch. Abduction was restored and the trochanter was on exact level with Nelaton's line. This gives her a much more useful limb and I believe the shortening would have been reduced another one-half inch had she not destroyed her casts so often. While firm union has taken place, and the bone softening process has subsided, she will be kept on crutches a month or two longer, to guard against a possible return of the condition.

597-8 Tucker Building.

An Opinion as to the Ultimate Results Obtained from Surgical, in Comparison with Medical Treatment, in Certain Ovarian Diseases and in all Ovarian Neuroses.†

By J. Allison Hodges, M. D., Physician-in-Charge of the Hygieia Hospital, and Professor of Nervous and Mental Diseases, University College of Medicine, Richmond, Va.

The best method for treatment of ovarian diseases and neuroses, is and always

†Paper read at meeting of the North Carolina Medical Association at Winston-Salem, June 16th, 1908.

has been a problem for the profession.

I am, in no sense, an opponent of discriminating and skilled surgery in these cases, nor do I decry the brilliant results often obtained, but an experience of a number of years in the treatment of this class of patients, coming to me in the various stages of the acute and chronic manifestations, and coming, also, from the hands of many of the most brilliant operators in this country, has convinced me that surgery has been over rated in their cure, and that, unless there is a marked pathological condition of degeneration or destruction, this line of treatment has been largely unavailing and impotent, and that medical lines of treatment, when proper discrimination has been used and careful regimen carried out, produce the best results.

To speak plainly, I believe that specialism run-mad, and the further fact that therapeutic nihilism prevails in the minds of many physicians and surgeons has often been the precipitate cause of surgical intervention in many of these cases, which should have had the benefit of more careful, more systematic and more enthusiastic medical treatment before being submitted to surgery as a "dernier-resort."

It is my opinion that for a proper diagnosis and consequent successful treatment, this class of cases requires more knowledge of the fundamental principles of the basic elements of medical and surgical science than almost any other, and that success cannot even be hoped for, unless each case is considered upon its special and individual merits.

It is a mistake to enter upon their treatment, believing that nothing will avail short of surgery, which often is the despair of curative medicine. Medical men have usually been more dilatory, or at least more modest than the surgeons in advancing their views and advocating their claims, and the result has been obvious.

It is a that likewise fact the surgical method of treatment frequently appears to be an excuse for lack of interest, industry and discriminating intelligence on the part of the physician, and that it appeals to us as an easy method of getting ourselves out of a perplexing situation.

Most medical men are not fully rounded physicians and surgeons, and it is equally true that most surgeons are not fully equipped in the whole realm of medicine, consequently errors of judgment in treatment, are as easy as errors in diagnosis.

Oftentimes surgeons are not fitted by practice to study the medical side of a case, or are too prone to ignore the medical points in evidence, just as the physician is often ignorant or unpracticed in the surgical fea-

tures of such cases.

In other words, there is frequently a lack of skilled knowledge in diagnosis on both sides, and the prevalent idea in our profession, both medically and surgically speaking, that the correction or removal of some one abnormality will solve the difficulty, is the basis of many of the undesirable results seen. I have not tabulated any series of cases for this paper, for while the list might be startling, it would not be conclusive nor convincing to many who have not personally examined them and made their own diagnoses.

It is my belief that too little attention has been given to the scientific and clinical study of the individual cases by both physician and surgeons, and that a grave mistake is frequently made in submitting the patient to the surgical procedure too early, for the fact is often and deplorably overlooked that surgical operation, especially if unsuccessful, robs the poor patient of the last despairing hope of health.

The realization of this by many patients, particularly those of a neurotic temperament, removes all hope or effort, and induces a resultant train of nervous and mental symptoms, compared to which the state of chronic invalidism, was but a trifle.

In brief, then, the successful treatment of these cases requires not only a complete and continuous medical and surgical study of the special symptoms, but also of the individual temperament of each patient, as well as a carefully developed line of treatment, exhausting every mean so that for the alleviation of physical suffering before submitting the patient to the alternative of surgery, unless there be marked evidences of a pathological condition urgently requiring it.

I am aware that many of these patients fade away, carrying along with them the reputation of the physician and the silent evidences of his lack of discrimination, but still I believe that if the physician could impress his patients with the fact that, although they are able to be on their feet, they have symptoms of an illness which are just as definite and just as logical as would be the evident signs and symptoms of a pneumonia, for instance, and though their symptoms are different from the usual signs and symptoms of illness, still that if these patients would consent to be guided by the careful advice and treatment of their physician, the ultimate results would be as beneficial and lasting as in the commoner forms of disease.

In my opinion, we, as physicians, are to blame for not impressing, and gravely impressing these patients with the seriousness of their condition, and not insisting upon

the enforcement of our directions, and the necessity of the patient's full cooperation.

If the physician be lazy, or too little interested to properly manage the case, it would be better for himself and far better for the patient, that he should not in any manner attempt its treatment.

I believe further that with a proper appreciation of these facts by the physician and a considerate cooperation from the patient, we could in most of these cases produce results that would be as brilliant as ever could be accomplished, in occasional cases by means of surgery.

Meddlesome pelvic interference by the physician in the treatment of these cases is no less to be countenanced than precipitate surgical intervention by the surgeon, for I believe that he is a wise man who, recognizing an oophoritis will allow the uterus, for example, no matter how greatly displaced it may be, to remain just as he happens to find it, and will at first address himself to the ovary alone.

Relieve the patient first of her intolerable suffering and despondency, thus securing her sincere regard and cooperation, and there will be time enough left to rectify other matters.

I do not believe that the cause of the long and varying train of symptoms referable to ovarian disease is usually found within the uterus, however misplaced it may be or in however great a degree its mucous membrane has degenerated, for it seems to me to have been frequently demonstrated that a retro-displacement and oophoritis are entirely distinct troubles, each characterized by peculiar phenomena, and each calling for separate treatment.

I have found, pessaries to be only exceptionally beneficial, and more often that their indiscriminate use not infrequent mal-adjustment, have been the exciting cause of serious disease.

I do believe, however, that in prolapse of the ovary, in hyperæmia or congestion, in oophoritis, acute and chronic, as well as in oophoralgia and ovarian neurosis, great and lasting benefit has been obtained along medical and hygienic lines of treatment.

Absolute rest, full feeding, proper eliminative measures, hot vaginal douchings, not pints, but gallons, medicated tampons of ichthyol-glycerin, painting the vaginal vault with iodine, repeated small fly blisters to the iliac region, the use of the galvanic current of about 50 milliamperes, massage, unless blood or pus has accumulated in the Fallopian tube, where, of course, this measure is contra-indicated, as there is danger of fluid being pressed into the peritoneal cavity, graduated gymnastics, etc., together with the administration

of tonics, the very careful use of nervines, the chloride of gold, the daily use of three to six tablets of the desicated parotid gland substance of sheep, systematic hydrotherapeutic applications, etc., are all in turn and as required, potent agencies for palliation, as well as cure.

In conclusion, my experience has taught me, and this paper is intended not as a dogmatic presentation of the subject, but simply as a record of my personal experience, that both physicians and surgeons do not frequently appreciate the medical and psychic treatment and management of these cases, for surgical treatment in the end produces no better results than the medical, and often robs the patient of the last hope, leaving her a physical and nervous wreck, even if cured, so to speak, anatomically. This result is wholly disappointing, and is only changing the clinical picture of the disease, substituting oftentimes for painful manifestations, those symptoms resulting from a morbid hopelessness for relief, the last stage being worse than the former.

Not a few times I have known one ovary to be removed, and the patient to return soon for the removal of the other, because of faucial pain on one or both sides, thus proving the fallacy of the first diagnosis, and moreover emphasizing that all tender and painful ovaries ought not to be subjected to surgical procedures too hastily.

In some few cases, nothing but an operation will cure the patient, and when after careful treatment and study of the case, such a fact is recognized, it is nothing short of ignorance or prejudice to deny the patient the benefit of an operation for possible cure, but even the surgeon, in his work, should be guided by the rules of the strictest conservatism, and should not forget, as is so often done, that the cure is not completed when the uterus or ovary is replaced, or extirpated, but that to accomplish the best results, and to avoid, as well, the recurrence of habit-symptoms, medical agencies must be called into requisition,

Only in this way, then, by medical lines of treatment at first, fully and faithfully administered, afterwards by surgical methods, if the former have proved futile, and by both, if the latter become necessary, can the end aimed at, complete restoration to health, be obtained.

To summarize, I believe that,

1st. Too little time and skill are given usually by both physicians and surgeons in the proper diagnosis of these cases;

2nd. The proper diagnosis requires a critical consideration, not only of the pathological conditions present, but also of the individual temperament of the patient in question.

3rd. Each case must be considered upon its special and individual merits, and it must be remembered that the correction or removal of a single pelvic abnormality does not often effect a cure.

4th. Meddlesome pelvic interference by both physicians and surgeons in the treatment of these cases is to be condemned; for the patient first requires systemic treatment and management.

5th. Certain ovarian diseases, as mentioned, and most ovarian neuroses do not usually require operative measures; better results being obtained by proper and continuous lines of medical treatment.

6th. Surgical measures, if decided upon, are often undertaken without sufficient constitutional preparation of the patient for the operation.

7th. Frequently these operations are too radical, and are undertaken before medical measures have been given a full and a fair trial, and are graver than are usually considered, for the resort to surgery robs the patient of the last hope for health, and if unsuccessful, induces a train of symptoms more serious than the original condition.

8th. If a surgical operation is decided upon, the non-reference of the case back to the family physician for final cure is frequently a serious mistake, for otherwise only an anatomical cure is effected, and not a physical and psychic one.

9th. To obtain the best and most permanent results, it is necessary that the family physician, who first sees these cases, should use all available means for their cure and for the prevention of threatening complications; and that if these do arise, and surgical methods are indicated, there should be harmonious cooperation between the referring and attending consultants both in the treatment and subsequent management of them.

Obstetric Work from the Standpoint of the Practitioner.

By Dr. A. B. Croom, Maxton, N. C.

This is a subject which should interest every medical man; for no section is without its share of such work and to the general practitioner or family physician usually falls these duties.

Obstetrics, we all concede, is a line of our profession entirely distinct and yet very closely connected with the general practice of medicine, still it is a line of work falling more on the surgical than the medical side.

I desire in these brief remarks to emphasize the surgical side and to point out or call attention to what the author regards a

few of the most important points to be remembered in attending the usual run of lying-in cases.

1st. Remember that in complicated cases when interference is necessary that an experienced and skilled obstetrician is required; and even when we feel ourselves thoroughly competent to do the said skilled piece of work that an assistant should be called.

2nd. Of still more importance is it to remember that nature is the great obstetrician and will in the majority of cases be able to pull the patient through without our "skilled assistance"; therefore do not interfere unnecessarily,—do not be guilty of "meddlesome midwifery."

3rd. Remember that from start to finish in any labor case there is nothing of more importance than asepsis. Here I may remark that while I am well aware that some of my friends regard this a matter of choice or some might say useless and unnecessary; still I wish to lay especial stress upon the use of sterile rubber gloves as routine. It has been a great satisfaction to me in my few years experience to feel sure when finding a slight rise of temperature that it could not be any infection coming from improper cleaning of my hands.

It is of course, the duty of one who announces himself in this line of work, to be ready to promptly meet all emergencies. The obstetric bag should be kept in thorough readiness. It should contain the usual articles as sterile gauze, cotton, perineal pads, nail brush, soap, bichloride tablets, and in addition such instruments as forceps, needles, silk, or other suture material, etc.

In event of a tear of the perineum or cervix, they should be immediately repaired. And before such repairs can be done they must first be found; therefore do not fail to look carefully.

Preparations are made for care of the baby before the rush, and means of resuscitation should be at hand always—hot and cold water, a flannel wrap for the child, etc.

Post partum hemorrhage should always be thought of in time to avoid it. The bladder and rectum should be emptied at the beginning of labor. Quick and vigorous kneading of the uterus as soon as the second stage is past should be continued through the third stage and further until the contraction is firm and a hard uterus is felt. A routine dose of ergot after the placenta is delivered is my practice. It may save trouble and cannot do harm.

The after-treatment of these cases is of importance. The duty of the attending obstetrician is by no means done when his

†Read at the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C.

patient is safely delivered and comfortable.

Perineal pads should be applied immediately after the patient is cleaned up and before any change of clothing and bedding. These should be used during the entire puerperal and period changed as frequently as indicated—each few hours during the first day or two and thereafter as necessary, two or three times daily. The patient should be kept quietly and comfortably in bed, not remaining in any one position long enough to allow a slight displacement to give trouble in the future. The diet should be regulated largely by the condition of the patient—the breasts or rather the milk-supply being the chief index. If the milk is scanty, a liquid diet—cocoa, tea, milk, etc. If abundant and breasts are giving pain, a dry diet is indicated.

The most normal cases should remain in bed for ten days and should not show the least rise of temperature.

The practice of giving a saline or castor oil purge on the second day is a good one and often saves a slight rise of a half or one degree in the temperature. A rise should be regarded with suspicion and if the odor of the lechia indicates the least trouble, especially if we have a chill—Intra-Uterine douches of hot saline solution should be promptly and frequently employed until all temperature and odor are gone.

With proper technique we should not have any run of temperature and the patient may be dismissed on the tenth day.

The Examiners' Golden Rules for Life Insurance Work.

By Albert Anderson, M. D., Raleigh, N. C.

"A declaration of Independence for the Family" is the fundamental principle and key note to life insurance. With this in view we should be always on the alert to conserve its interest and promote its development and to do this I do not know a department that has more to do to gain this end than the medical. Therefore, whatever rules that promote and conserve its interest and development are golden. We want to hew to the line, give "precept upon precept, here a little and there a little," till, in our bulletins and journals these rules are thoroughly impressed upon the mind and observed in the work of Medical Examiners.

Your first impression in meeting an applicant should radiate like the spokes of a wheel to the circumference of his entire personality with regards to his manners, expression, color, countenance, gait, speech, hand grasps, occupation marks, dress, sequelæ of recent illness, present condition of physique, etc.,

Do this in a way as to make the applicant feel that he is in the presence of a congenial friend as well as an examiner.

Put your subject forefront to the light.

Do your work in the quietest obtainable place.

Observe the rule of lovers—be alone and don't allow the presence of any other party or parties, except the presence of husband or lady friend during the physical examination of a female applicant.

Be sure he understands the meaning of all questions.

Arrange the clothing so that your inspection and examination can cover the entire chest with minuteness.

Know the specimen of urine gotten was the applicant's and his identity beyond question.

Begin with the first question and take them in order to the last and then review them for the purpose of determining that there are no errors or omissions, no ambiguity or obscurity.

Learn to be rapid yet thorough and concise in your report.

Is there any necessity for special instruction for this work, considering the four year's course in our best medical schools? I think so, and I have learned that in the last four years many colleges and post graduate schools have introduced into their curriculum a special course for medical examiners. Insurance companies welcome this because of its need. The doctor has been trained for the consideration of diseases, not for the consideration of 'average health'—a patient seeking after health through the council of a doctor, his training has lead him not to weigh and determine the truth of statements as to a man applying for life insurance. To a great many applicants a life insurance company is impersonal and a soulless corporation out of which they may be permitted to extract a few thousand dollars on the payment of a few premiums without hurt to conscience, but with commendation of his foresight by his friends and loved ones enjoying this fruitage.

The relation between agent and examiner are regarded either too antagonistic or too sympathetic. There should be the "Golden mean" and this comes through tact, affability, 'suaviter in modo'—hold absolutely to the interest of your company and be pleasant, reasonable and polite to agents in rejecting their applicants. To do all this successfully demands special training of our examiners, for the possession of this knowledge or power does not come through intuition or spontaneity.

As to identity an honest and intelligent examiner can detect an imposter because criminals are fortunately only cunning but

not intelligent.

An elaborate technique is not at all necessary to arrive at a definite idea of the physical condition. To know the normal well is necessary in order to recognize the abnormal. As suggested above precision and rapidity are the main points to cultivate in insurance work. The entire chest should be examined in every case. Don't make the mistake that it takes too much time to do a careful and systematic examination. System and skill takes less time than an examination made without following a correct method. To summarize, I would say accurate technique, eyesight and hearing, a practiced hand, a knowledge of anatomical landmarks of the chest and to know the physical signs of health and disease, are the essentials of equipment.

The clothing must be properly arranged to examine the chest thoroughly; and I mean by this to remove them and have the whole chest exposed—to roll up the shirt under the arm-pits will cover up the apices of the lungs—the very area where tuberculosis begins. Experts say that it is impossible for them to detect the crepitation of an incipient tuberculosis through starched linen. My plan is to remove clothing down to the waist with exception of the lower undershirt which can be opened and rolled back out of the way so as to bring into view every part of the naked chest. In women, remove the corset and other articles of dress and so adjust them as to permit a thorough examination—exposing the upper chest and shoulders and this can be done in a way to gain the consent of applicant and give no offense to the modesty of any sensible woman. Right here I would suggest that you use your best tact and judgment in the different steps of your work, and this can be done in a way to allow you to go forward in your examination to completion with mutual interest.

Bear in mind the fact that it is not the acute infectious diseases that play havoc with our mortality rates, but early and destructive mortality comes from chronic diseases that ought to be discovered and rejected and thus save three-quarters of the actual mortality for the first year or two due to those underlying conditions discoverable by following the above suggestions. You can see the importance of this from the view point of justice to the policyholder in properly grading applicants. Invalid lives, average lives and sound men of untainted stock, all thrown into one class, make premium rates higher than they should be for the latter class.

Heart disease and its kindred troubles should not appear to any appreciable extent for at least five years after the

issuance of a policy, if the physical examination be properly made, and yet it is declared by Greene, and he gives statistics from both British and American tables, that these troubles commence during the first year and cites eleven cases in his book coming under his own observation within six weeks to two years, and further states the list could easily be quadrupled.

These mistakes are made among examiners of all companies and the causes are chargeable primarily to the companies. The examiners are not sufficiently impressed with the idea that their work is all important and official. Why we pay the liberal fee of five dollars for each examination is because we want a man competent and reliable with a sense of responsibility resting upon him as a commissioned officer. Another cause is said to be the lack of definiteness in the company's requirements. We put such questions in our examination blanks which we think are the most important to get all the necessary information, but every competent examiner should not only answer every question, but after doing this if he knows any other necessary information should give it, or he fails to meet his responsibility and earn his fee. In failing to detect incipient tuberculosis or heart disease has cost insurance companies millions of dollars and this failure comes from lack of a proper place in which to examine, as well as incompetency or carelessness of the examiner.

Ligation of the Femoral Artery—Results.[†]

By Dr. J. R. Paddison, Oak Ridge, N. C.

In the presentation of this clinical case to the society, I do so not because of any specially wonderful feat having been performed, but purely because of the very great infrequency of this class of cases, and because of the doubtfulness of the final results.

Surgical Anatomy of the Femoral Artery.—I shall briefly refer to the anatomical features of the femoral simply to refresh the minds of many who, like myself, are not surgeons, and therefore become "rusty" on anatomy.

(a) Position of this blood vessel is best outlined by a line drawn from a point midway between the Ant. Sup. Spinous process of the ilium and the symphysis pubis to the prominent tuberosity on the inner condyle of the femur, having the leg slightly abducted and rotated outward. The upper two-thirds of this line lies over the course of the femoral.

[†]Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June, 1908.

Practically speaking, the femoral in the upper half of its course lies in Scarpa's triangle and in the lower half of its course is found Hunter's Canal.

(b) The blood vessel is divided, for convenience sake, into the common femoral, that portion corresponding to about the first two inches below Poupart's ligament, and the superficial femoral which is a continuation of the common femoral.

The largest branch given off from the femoral is the profunda; its point of origin usually being on the outer side of the femoral from one to two inches below Poupart's ligament, and this vessel is of special significance when we are considering the question of ligating the parent trunk.

Report of Case.—Early in the morning of December 18, 1907, I had a "hurry call" to see patient in question. Was informed that patient had been accidentally shot by a dynamite cap, and was perhaps already dead from loss of blood, unless from some cause he had stopped bleeding. Luckily for the patient, the hemorrhage had ceased, due, I think, to the very small surface wound, which was so small the blood was dammed back into the surrounding tissues and firm pressure was brought to bear upon the injured vessel by the formation of a firm coagulum. In other words, nature saw if she waited for the doctor, the patient would be a "goner," so promptly set to work and applied sufficient pressure to stay the hemorrhage.

History of Case.—K. P.; age twenty years; white; occupation, cook at a lumber camp; family history, etc., of no importance. I learned that patient had thrown a piece of paper, which contained a dynamite cap, into the stove to kindle the morning fire. As soon as the fire blazed up, the cap exploded, a portion of same entering patient's thigh squarely over the femoral and two inches below Poupart's ligament.

Hemorrhage had been very profuse, and patient showed signs, though slight, of shock, yet I found pulse really better than I had anticipated.

Upon examination of wound, I found a small opening at the point above mentioned. The piece of brass had ranged slightly downward and inward and because of the irregular outline of piece of brass, it had caused more or less laceration of subcutaneous tissue.

The immediate and surrounding tissue was ecchymotic and distended. Considering the profuse hemorrhage, the dangerous locality of wound, the absence of hemorrhage at present time, and the comparatively good condition of patient, I decided upon the following course:

First:—Bandage limb comfortably and

have patient remain absolutely quiet until my return.

Second:—To have an older and wiser head in consultation with me upon my return.

At two p. m., about eight hours after injury, I returned to my patient and was met there by my esteemed friend, Dr. H. P. Bahnson, of this city. After going over the case thoroughly we decided to open up the wound. First, to ligate any important blood vessel, if need be, to prevent subsequent hemorrhage, and secondly, to remove the piece of brass which had caused the trouble. We cut down over the femoral, making an incision about three inches long, and our findings were vastly more than I had anticipated, for I hardly expected an injury to the femoral because I did not believe this vessel could be opened and yet there be a spontaneous cessation of the hemorrhage. We had hardly started through the firm coagulum when it seemed we had struck an everlasting spring of bright red blood, but knew only too well that this spring would last but a very short time unless stopped quickly. Both Doctor Bahnson and I worked like Trojans for a few moments under very great difficulties and disadvantages, for our field of operation was simply obliterated by the profuse outpouring of blood. However, by strong pressure upon femoral under Poupart's ligament, the hemorrhage was staid until the field was somewhat cleared, and the femoral securely ligated about two or two and one-half inches below Poupart's ligament.

The loss of blood had been great and the patient was manifesting this fact. The anæsthetic was discontinued; the wound swabbed out with pure alcohol, no further search being made for the bit of brass in the tissue, and the wound quickly closed. The usual line of treatment was given patient to overcome shock. I instructed his nurse to keep the limb warm with hot blankets and hot water bottles if needed. Patient began improving and was able to be out in about ten days. Collateral circulation was rapidly established, I presume, the patient never complaining of anything but a slight numbness of limb for a few days. The patient tells me that he suffers no inconvenience whatever with the limb.

This case presented many surprises to me but none greater than the one of last week when I examined the case for the first time since the patient was discharged. To my surprise, I could detect no pulsation on injured side at Poupart's ligament. Continuing the examination, I could easily trace a round cord from point of ligation upward to Poupart's ligament, which, I believe, is

nothing more or less than the obliterated femoral.

Well, where does he get his circulation for that leg, did you say? May be the Lord knows, I am quite sure I don't, unless this is one of those cases in which the profunda arises abnormally high, or unless the collateral circulation is of much more moment in this part of the body than is usually thought.

In conclusion, I wish to say, gentlemen of the society, that the case is to me very unique and has caused me to ponder and wonder many times, and while I am not able to clearly figure out all the points in the case to my entire satisfaction would like to say I will feel amply repaid if the report of this case in this simple manner will, at any future time, be of any aid and assistance to a brother physician when dealing with the subject of femoral ligation.

Vaccine or Tuberculin Therapy in the Treatment of Tuberculosis.*

By H. B. Weaver, M. D., Asheville, N. C.

To the bacteriologist we owe much; for it was he who stood alone, single handed fighting an army of doubters, and laid a foundation upon which the pathologist was forced to build. From him we received our first knowledge of bacterial life, and its relations to infectious diseases. It was the immortal Virchow assisted by Klebs who first announced the new theory that all functions of the body are but manifestations of activity or dormancy of the cells of the organism.

They first demonstrated to the world in 1877 that the inoculations of animals with cultures from tuberculous products produced similar lesions to those following the direct infection of tuberculous tissues themselves. This work, persisted in by Klebs, led eventually to the discovery by Koch of the tubercle bacillus, the real cause of the disease, the essence of which constitutes the vaccine in tuberculin therapy.

Hammerschlag is credited with having first made investigations regarding the nature of extractives of the tubercle bacilli but to Robert Koch is due the honor of discovery of the principles and preparation of an emulsion of the powdered dead bodies of the tubercle bacilli T. R. and old Tuberculin, which has stood the test of time in its therapeutic application in the diagnosis and cure of tuberculosis.

This leads us to inquire into the principles which underlie the vaccine or tuberculin therapy of Tuberculosis.

What is Vaccine therapy?

It is the treatment of infectious diseases

in general by the inoculation of the patient with the product of the dead bodies of the micro-organisms of the same species that has caused and is maintaining the morbid process in the organism.

And in particular as in tuberculosis, it is the injection of the specific product of the tubercle bacilli—tuberculin—in a definite manner and proper doses whereby we get active immunization and the disease is healed.

This method consists, essentially in the exploitation and increased activity of the protective machinery whereby the anti-bacterial power of the blood is increased to such degree as to successfully protect the organism from further invasion of pathogenic organisms and the deleterious effects of their toxins.

Two elementary contents of the blood necessarily come into consideration as protective agents against the invading micro-organisms. "The leucocytes constitute one of these; and the anti-bacterial substances in the blood constitute the other."

It is true that Metschnikoff belongs the discovery of the phagocytic power of the blood, and Koch discovered the principles to a great degree, of tuberculin therapy, but it was left to Almoth G. Wright to show to the world *how* and *why* phagocytosis is accomplished in bacterial diseases. This he has done in a most lucid manner in his exposition of the opsonic index, whereby the amount and power of opsonins in the blood fluid may be estimated.

What then is an opsonin?

It comes from the Greek word "Opsono" "I convert into palatable pubulum" or "I prepare the banquet."

Opsonins are substances—antibodies—formed in the blood fluids which prepare and render micro-organisms susceptible of being ingested and digested by the leucocytes.

The technique, by which the amount of opsonins present in the blood may be determined, need not be repeated here, but suffice it to say that it is the chemical union between the opsonins contained in the blood plasma and the pathogenic organisms that render the latter acceptable to the white blood cells. Therefore the gauge to phagocytosis does not depend on the activity of the leucocytosis but upon the quantity and increased power of opsonins in the blood fluid. Wright says: "Increased opsonic phagocytic response is associated with successful immunization or cure, and this increased phagocytic response is dependent on an increase of the opsonic power of the blood fluids and not on the increased capacity for spontaneous phagocytosis on the part of white corpuscles."

*Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C. June, 1908.

Now if these things are so, if the machinery of immunization is understood and correctly interpreted by Wright there ought to be a better way of measuring the immunizing effects of vaccine than by the old method of test inoculation of animals.

Wright and Douglas have clearly demonstrated that by placing in a pipette, an equal quantity of serum to be tested, of blood cells, and of bacillus emulsion, and incubating for 20 minutes the contents of the pipette, then staining and examining under the microscope the average number of bacilli taken up by the leucocytes may be accurately counted. This gives the "phagocytic index."

The opsonic index is obtained by comparing this phagocytic index with that of healthy subjects.

(1). We learn from these experiments that the serum profoundly influences the phagocytosis. That the increased power of the serum depends upon the opsonins therein contained. In short, the whole experiment teaches that the changes which are associated with the acquirement of immunity are changes in the blood fluids and not in the white blood cells.

(2). He learns, that the "phagocytic reaction of the leucocytes and the contents of the blood in anti-bacterial substances can be measured with a degree of accuracy sufficient for all practical purposes." And if by these methods it is possible to measure the changes by charts and curves showing the negative and positive phase in each—which are superinduced by bacterial inoculation, it must be possible by curves to gauge in a more accurate manner than by a test inoculation the immunizing effects of a vaccine, and what should be the doses in any given case.

We have not time to go into a detailed account of the curves of immunization which are obtained by inoculation of tuberculin vaccine and the laws which govern the output of the opsonins, but we should learn in a general way that the opsonic index varies very little in a healthy man, from day to day, but in tuberculosis the index fluctuates considerably. That the depressions or "negative phase" is due to a natural inadequacy of the organism in her protective machinery of immunization or to the overwhelming doses of tuberculous matter by auto-inoculation. That the positive phases result from auto-inoculations or artificial inoculation just sufficient to act as a stimulus and that the essence of the vaccine therapy consists in so timing and graduating a series of inoculations as to perpetuate the positive phase at high tide, and therefore maintain the antitoxic activity of the organism.

Up to the present we have been dealing only with the physiology of immunization showing how the opsonins are preformed in the blood: that they are not bacteriolysins, agglutinins or antitoxines; but are the physiological products of the tissues of the body, and are in the highest degree a specific, whose special function is to render all bacteria fit for ingestion and digestion by the leucocytes, whereby the immunizing response is increased.

If we successfully treat the bacterial diseases by this method, something more is to be learned. We should know how the bacteria find lodgment and growth in the tissues. We should learn how bacteria or their product find their way from the focus or infection into the blood stream; how the organism react to auto-inoculation and how to bring the bacteriotropic substances and leucocytes into action upon bacteria, which are cultivating themselves in the body, but outside of the blood streams.

We know therefore that the rational application of this treatment can be had only in strictly localized processes where the focus of infection is cut off from the lymph and blood streams. This class comprises almost all chronic infections including all localized tubercular process and early pulmonary tuberculosis. In this class the opsonic index is persistently low, owing to the absence of the immunizing stimuli. In the formation of a tubercle there is lowered vitality in the focus of infection caused by absorption of the bacteriotropic substances by the tubercle bacilli, and that there is a deficit of antibacterial substances in the foci, is owing to the fact that their conveyance through the lymphatics is greatly hindered, by the barriers thrown up and around the tubercle, in the form of a fibrous capsule.

Next in order we must notice the general principles which should underlie all our therapeutic measures: First, "We must provide for the conveyance of bacteriotropic substances into the focus of infection." Second, "In case there is stagnant fluid in the focus of infection, which prevents the entrance of bacteriotropic substances from entering the infected area we must draw off the fluid in the focus."

One way the antibacterial fluid can be drawn fresh from the blood stream through the lymphatics into the focus or infection is by the application of heat, or by Bier's method of stasis-hyperemia which is effected by backing up the blood in the veins which increases the hydraulic pressure in the capillaries. This is effected as we know by the application of elastic bandages to the parts in such a manner as to cause conges-

tion in the focus of infection thereby carrying more—an excess—of antibacterial substances to the bacteria which by increased leucocytosis are destroyed and the disease is healed. This method controverts the old method of treatment of inflammatory processes in the limbs and joints by rest, ice and elevation. Willy Meyer, of the Post Graduate of New York, in a recent article speaks in the highest praise of this method of treating tuberculous joints and limbs. He says: "Of course hyperemia is not a panacea, but experience has shown, that this conservative treatment, is by far the best method of treatment at our disposal for the treatment of tuberculous joints and bones.

To corroborate Myer and others let me quote from Bier's book in which it is stated that in 17 consecutive cases of tuberculosis of the wrist treated at his clinic, 15, or 88% were cured of tuberculosis. Of the elbow 72%, and of the foot 61 per cent., resulted in a cure. The very hyperemia we have all along been combating with our elements of rest, ice and elevation, he now teaches as being an etiologic factor—a wise arrangement of nature—in its fight against an invading foe, which has not to be reduced, but increased in order to check the infective process and its deleterious results. "He certainly has demonstrated beyond the shadow of a doubt that his method is far superior to those formerly in vogue."

In the second instance where there is an accumulation of stagnant fluid in the focus of infection as in tubercular peritonitis the indications are for operative interference, by which we achieve many times wonderful results, but it is not the surgeon's knife that does the good, but it is the access gained by the bacteriotropic substances to the infected bacteria which will inhibit their further growth and their destruction. In other words we have artificially induced auto-inoculation.

Now in regard to inoculation of bacterial vaccine, or tuberculin for tuberculosis:

If, as it is admitted, that the reason every case of tuberculosis is not cured, is on account of a deficiency of antibacterial substance—of an opsonin—in the blood; can this be remedied, and how?

This was the great problem that concerned Professor Wright, and he has apparently solved it by the renaissance of a once discredited method which, illumined by his own genius bids fair to become one of the most valuable assets in medicine. And that method is nothing more nor less than Koch's method of treatment by tuberculin or by the watery extract of Von Ruck. Koch's method failed because the requisite knowledge did not exist for its intelligent administration. "The main thing, the dose pre-

scribed was too enormously large and given too frequently, and, through the union of the opsonin with the tuberculin, terribly reduced the patient's power of resistance to the infection within him."

Under Koch's treatment from five to ten milligrams were given; whereas, Wright administered as a dose only 1-1000 of a milligram. We knew nothing then of the opsonic index or negative or positive phase; that the giving of an injection during the negative phase would still increase further that negative phase and drive resistance down to zero; but now, thanks to Wright, a new era has dawned in bacterio-therapeutics whereby it is made possible to administer tuberculin and other vaccines in an intelligent and safe manner both in diagnosis and treatment.

Wright in speaking of single species of micro-organism found in the body when giving his personal experience of vaccine therapy goes on to say: "Typical examples of this type are found in cases where tubercle bacilli have effected lodgment in lymphatic glands. In this type of infection all but uniformly successful results have been achieved in my experience by vaccine therapy." "What applies to tuberculous infection of lymphatic glands applies also to tubercle infections of the kidneys and other urinary organs and also to early cases of tubercle of the lungs."

The fundamental facts demonstrated by Wright and Douglas supply a firm basis for the extension of these therapeutic lines in a definite and scientific manner, whereas before it had been entirely tentative and fraught with risks. But by this treatment Wright seeks to obtain the maximum amount of protective substances from the minimum inoculations and he found that doses held by Koch and his disciples to be moderate were more toxic than curative and produced the negative phase. The positive phase which lasts about two weeks is strongest when produced by tuberculin injections in infinitesimally small doses without producing any constitutional disturbances—1-1000 to 1-600 milligrams,—but Koch taught that five milligrams were the proper dose—5000 times as much.

Urwick who so lucidly expounds Wright's theory sums up the whole question by saying: "As the attempt to free the organism from the bacteria by antiseptics is recognized to be hopeless, the only other chance we have of destroying them is by the injection of vaccine which forms protective or in Ehrlich's language, 'Bacteriotrophic substances.'"

In conclusion, I have refrained from entering into detailed statistics but have confined myself to the discussion of the main

principles of vaccine therapy hoping that by any means we may here and there induce a scientific worker to embark on this task of mastering this somewhat difficult technique, which shall vindicate the efficacy of vaccine therapy.

Although this is a new and practically untried method with the general practitioner, yet the opsonic theory has demonstrated that tuberculin as a therapeutic remedy in tuberculosis, has passed beyond the experimental state, and rests on the firm basis of clinical as well as therapeutical facts. In regard to this treatment Trudeau lately states that in tuberculosis the more chronic the type of the disease the better adapted to tuberculin treatment the case seemed to him, and that in all cases of the common type whether incipient or of long standing and advanced, provided the nourishment was good, will derive more or less benefit from tuberculin inoculation. This utterance coming from such high authority as Trudeau who is so conservative and not, until lately, an enthusiastic advocate for this treatment, speaks volumes for tuberculin therapy.

For eight years I have been treating tuberculosis more or less with the culture products of the tubercle bacillus either in the form of old tuberculin or of watery extract. The results in incipient and moderately advanced cases haven't been eminently satisfactory. Even in advanced cases, with cavernous softening where the bacilli were found in the sputum, if nutrition were good and no complications, the treatment is beneficial at the rest of the activity of the of the infection, which is a decided advantage to the dietetic and open-air treatment.

It is seen therefore on every hand that the intelligent and educated part of the profession in regard to this "opsonic philosophy" is one of waiting, anxiety, and extreme respect.

Chronic Urethritis and its Treatment.

—Guisey, in *The London Medical Lancet*, says that under the term chronic urethritis is included every chronic, painless inflammation of the mucous membrane of the urethra of gonococcal origin, even though no gonococci may be present. There are three main varieties: (1) those in which gonococci are still present; (2) those which are microbic, but in which gonococci are absent; and (3) those in which no organisms are to be found. The spread of a gonococcal urethritis from the anterior to the posterior urethra and to the deeper structures is due partly to the active movements of the gonococci and partly to the movement of the leucocytes which have swallowed them. Within a few hours of infec-

tion of the urethra gonococci can be found in the submucous tissue and around the glands of the urethra. The reasons for a urethritis becoming chronic are (1) the presence of some constitutional condition, such as general weakness or rheumatism, and (2) certain special anatomical conditions in the urethra, such as a stricture or an abscess. He thinks that stricture of itself has very little to do with the production of a chronic urethritis. The most important cause is the gonococcal infection of the glands of Littre and the crypts of Morgagni, from which repeated reinfection of the urethra may proceed.

The treatment of chronic gonococcal urethritis consists, in the first place, in its prevention by the abortive treatment of acute gonorrhea with extensive lavage of the urethra with various antiseptic solutions. In a chronic urethritis, if examination shows gonococci still to be present, the same treatment should be adopted as if the inflammation were acute, any vegetations, abscesses, or other gross lesions having been previously removed. Cocainization or the very weak solutions of permanganate of potassium and of perchloride of mercury are the most useful. When success does not follow, some lesions, such as a granulation or polypos, must be sought for and removed. In cases of chronic urethritis in which some organism other than the gonococcus is present similar treatment should be adopted, and even when no microbe is present lavage should be used. In all cases the only internal treatment should be the administration of urotropin and arheol after the local treatment has ceased.

Prognosis in Typhoid Fever.—Carl (British Medical Journal) discusses the prognosis of typhoid in relation to certain special factors, namely, the rate of the pulse, the agglutinative power of the serum, and the blood-pressure. The writer says a slow pulse and a high agglutinative power existing contemporaneously are of favorable import, whilst the reverse of this (a quick pulse and low agglutinative power) is serious. The two factors to have any significance must exist together. A quick pulse with high agglutinative power may coincide with or indicate a bad attack. The two factors are independent. The blood-pressure is as a rule only slightly elevated. In man it seems probable that the cardiac inhibitory centers are specially sensitive to the typhoid toxins, hence the slow pulse and the occasional presence of bradycardia in favorable cases of typhoid. In severe cases the normal sensitiveness of the vagus is more or less lost, hence the quickened pulse, cardiac failure, and lowered blood-pressure.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR

CHARLOTTE, N. C.

THE MEDICAL SCHOOL OF THE FUTURE.

Half a century ago the men who were the preceptors of the present generation spent two years of six months each in school before practicing as graduates in medicine. Today the schools that these men founded have rigid requirements for admission, and four years of graded work. What will be the school of the next generation?

In the first place, there is a demand from the people, through their legislatures, for physicians with better educations. This demand is met by raising the requirements for admission to the medical school. Then, modern ideas in public health require men of experience to manage the problems of sanitation. The medical profession is so altruistic that in its education of the masses it is abolishing those conditions that furnished occupations for the old school doctor. The municipal health officer of the future must be more than a politician.

Does the young man of today who wishes to study medicine realize what may be required of him before the world will be ready to take him seriously? His preliminary training must include one or two years in a college of liberal arts. Four complete years must be spent in medical schools, and then when he is about to receive his M. D. he discovers that he knows nothing and is urged to finish his education with a hospital internship.

Now why should not the medical school of the next few years be perfectly frank with its prospective students, and make that which they merely advise as advantageous part of their prescribed curriculum?

For example, one of the old and well known medical schools in the middle west announces that it controls for clinical teaching four well equipped hospitals. This is true, but one half of its senior class cut clinics and ward walks to prepare for the spring hospital examinations. Is there not a loss of energy somewhere?

If the medical school of the future is to be a six years course, two in college, and four in the technical school, why not make the last year more practical? By dividing the class into sections, each member could serve an externship, and graduate with experience in giving anaesthetics, acting as assistant in major operations, etc. He might also receive at graduation the degree of

B. S., as well as M. D. An additional year of postgraduate work, spent in the hospital, or in the research laboratory, with a thesis showing originality should bring him a "Master's" degree.

Why should not the medical school of the future, with its greater time requirements, prepare men ready to serve the public, as practitioners, or as health officers?

GREEK AS A PRELIMINARY STUDY.

Greek is dead; why not bury it? Who ever heard of Greek being among those studies required for entrance to a medical school? You can't learn everything,—why Greek any more than Sanskrit?

Is that the way you would answer me, if I should suggest that your son have at least a year or two of Greek before turning to the more practical things in medical school? Of course he must study Latin; absolutely necessary. Why, he couldn't write prescriptions, or use intelligently those technical expressions so mystifying to the laymen, without a smattering of Latin! But why Greek?

In the first place, Greek is not dead. Well do I remember a Greek fruit peddler who borrowed my copy of Xenophon's "*Anabasis*," and, for the first time in his life, read it as readily as he did his Greek newspaper. It probably seemed little more strange to him than would Franklin's "*Poor Richard's Almanack*" to the average school boy. Greek is not dead. It is merely the interest in it as a language that seems to be in danger of dying.

But we have no desire to learn a language merely because a few Europeans still claim it as a mother tongue. Do you know, Busy Practitioner, that a great many more than half of the expressions for use in carrying out your professional duties are Greek? Your boy is about to enter medical school, and those studies he is discussing with you so earnestly are all called by Greek names,—Anatomy, Physiology, Bacteriology, Pathology, Psychology, Neurology,—all the "ologies." True, an original Greek root is often Latinized, then Anglicized, or barbarianized, but it originated from the language of Homer, Plato, and Hippocrates.

A few years ago a young professor in a medical school of very high standing was quizzing his class in Nervous Diseases. The student under fire hesitated for a certain term to express a particular nervous symptom. The professor somewhat testily prompted him with the remark, "Didn't you ever study Latin? Call it '*Hyperæsthesia*.'" Nearly half the class were college graduates, and knew that the expression used was not Latin, and also knew that their exacting quiz master did not know it.

If you wish to express yourself intelligently in the Society meeting, in the class room, in your Journal, why not consider the fundamentals of the language? If you wish your son to be grounded in basic principles before studying technicalities, call his attention to the fact that the language of Medicine is not Latin alone, but is also Greek.

PHARMACY AND THE MEDICAL STUDENT.

There are always two sides to every question, and the men who hold to the view that an education should be "practical" have some grounds for argument. Why waste your time in learning that which will not be of use to you in your profession? Life is short at best; time is precious; get at your life work. So they urge you on, and if we could all agree on the preparation required for that life work, we would all heartily second their sentiments.

To the young man who is unable, on account of lack of money, or through some other circumstance, to enter at once upon a medical course, with its proper preliminary training, pharmacy should present many attractions. There is much irksome work in a drug store. It is not an especially liberal education to sell cigars, soda water, stamps, patent medicines, etc. Obviously there is more to be learned in two years spent in a pharmacy school than in the same time spent as an apprentice. However, a good druggist who will take an interest in his apprentice, and direct his studies, can teach many of the things that are considered essential. After the ordeal of the State Board examinations the young man is permitted to fill all prescriptions, and assume much responsibility. Now is the time when he may begin to think of a medical course. It may be a desire to earn more money, or a conscientious scruple that his "counter-prescribing" is seldom governed by any knowledge of the disease,—whatever the reason it is a notable fact that many young drug clerks do become medical students. If they hold the degree of "PH. G." from some good school, they have little trouble today in entering a number of the best medical schools. If they are deficient in one or more of the required studies, they postpone their going a year, and their spare time is spent in study, and a little more money is saved for future expenses. Once matriculated, the pharmacist generally becomes a good student. He gets credit for his pharmacognosy, pharmacology, etc., and is the envy of his fellow students because of his practical knowledge of the uses of drugs,—that which the student often thinks most essential, and of which he

knows so little at graduation.

The pharmacist has an advantage if it is necessary for him to earn money while in school. In a large city he has no trouble in getting "relief work,"—this perhaps pays his board. His room may often times be furnished in some store in exchange for his attention to emergency calls. There are sometimes more lucrative positions to be obtained if hours can be arranged. An assistantship in the pharmacy laboratory at the medical school may pay part or all of tuition, if he goes after it in time. Suffice it to say, he will have no difficulty in making his way through medical school if such is his ambition.

When he sets out to practice, with his crisp new diploma, his freshly painted sign, and his great desire to make himself an absolute necessity for the health and happiness of those about him, then it is that he is glad to have a little idea what to prescribe for the patient that occasionally enters his office. And this is a gift not to be despised, because it cannot be denied that while he has been learning in school and hospital the principles of pathology, and diagnosis of disease, no one has seemed to consider it especially necessary to teach him much about treatment, and strange to say, the patients in his particular part of the country are so benighted as to expect the doctor to give them medicine to relieve them of their distress. Then it is he can apply in a practical manner his drug store experience. When the "specialty man," that ray of sunshine for the young practitioner utterly negligent of scientific therapy, attempts to make him the company's local agent, he can firmly refuse, and know why he can prescribe an official article to better purpose.

If he should at times prescribe some "ethical proprietary," it need not be on account of laziness, but because he knows by experience that this particular formula made by the larger house is more pleasing in palatability, or appearance, than the extemporaneous prescription put up by his local druggist.

So altogether, if you must have a "practical" education in medicine, we find that the student who is a pharmacist is among those best prepared to fit himself quickly for usefulness.

PRELIMINARY REQUIREMENTS FOR ENTRANCE TO MEDICAL SCHOOLS.

There has been so much said, and so much done within the last few years, that it seems that the time was near at hand when the degree of "M. D." was to have more of the meaning that it has in Europe. American physicians surely occupy a recognized place in the medical world; why

should not the standard in the American medical school be as high as in those abroad? That State legislation, along the lines laid down by the American Medical Association, will soon bring this condition about is evident.

According to the statistics today, by the year 1910, fifty-two schools will require at least one year of college work for admission. One half of these schools will require two years work, probably all of them making some arrangement whereby the degree of B. S. is also conferred during, or at the end of the course. A full college course with a bachelor's degree is considered necessary by a few schools as preparation for medical work. That this is also the belief of some students is evidenced by the fact that 17 to 18 per cent. of medical graduates in 1908, and also in 1907, were graduates of colleges of liberal arts.

We do not go so far as to say that the college man makes a better doctor. He may lack those essential qualities for a successful practitioner, and thus may be outstripped by his more poorly educated, but naturally better endowed brother. However, the business world today is clamoring for college-bred men, because they feel that the young man fresh from the secondary school can get nowhere else in the same length of time the same amount of broadening attainments that will make him able to compete with his fellow. It isn't what he has learned from his text-book, nor lecture, but the fact that he has come up to a certain standard; that with the freedom that is enjoyed in a college community, he has been his own master to such an extent that he has "made good" with the college authorities,—it is this that makes him a factor worth considering in the commercial world.

Why should a profession have men who have proved themselves less capable of being their own masters? The high school boy, away from home for the first time, meets a different influence in the medical school than he does in a literary college. The lessons of the medical school are perhaps more practical but are more narrowing on that account. He loses the benefit of association with men who are interested in other things than what he is interested in. And in four years he must take his place in the world, a big world which doesn't care very much about what interests the doctor. May this not account to an extent for "the poor sticks socially" that we hear of in our profession?

But not because the physician of the future will be more "polished" ought medical schools the country over to raise their entrance requirements, but because they will thus receive minds better trained to grasp

truths, to quickly discriminate right from wrong, and to impart some precepts to others. The threatened decrease in the number of students, and even in the number of schools should occasion no other thought than that in raising our standards we are making even more pronounced the line that separates the scientist, and the alienist, from the charlatan, and the humbug.

VIVISECTION.

We hear much of vivisection and anti-vivisection and the champions of the latter are hard at work in order to induce Congress to pass a law regulating the practice of vivisection and animal experimentation. Let us consider the matter from a dispassionate point of view. While it is true that most of the opponents of vivisection know much less about the subject than the average layman does about medical things in general and are prompted more by an old puritanical spirit of intolerance than any special sympathy with the lower animals, yet there are some liberal minded, intelligent, reasonable, sympathetic individuals who are opposed to vivisection as it is carried on—in an irresponsible and unrestricted way. It has been claimed that medicine and surgery would have advanced as well and as far without its aid. What benefits has it conferred upon mankind?

First, the supply of vaccine virus which is used in the fight against smallpox is obtained by the inoculation yearly of thousands of calves with cowpox. Second, diphtheria antitoxin which has saved many thousands of lives is the direct result of vivisection and experimentation on animals. And so on with the other antitoxins, toxins, and serums which are used in the treatment of tetanus, hydrophobia, cerebrospinal meningitis and other diseases.

Anatomy and physiology owe much to vivisection, especially in the nervous system, and the foundation of the surgery of the brain and spinal cord was laid by Ferrier, Brown-Sequard and others in their numerous experiments on monkeys, dogs, pigeons and frogs. Before daring to sew up a wound in the human heart surgeons were convinced of its probable success by the results of similar operations by Rosenthal and Del Vecchio in their experiments on dogs. This same vivisection may be said to be the foundation of numerous brilliant and successful abdominal operations now of daily performance. The necessity of vivisection in order to promote improvements in medicine and surgery is quite apparent. But should there be any regulation or restriction to its practice, or should it be allowed indiscriminately to any young med-

ico who may want to focus interest upon himself?

Undoubtedly the majority of vivisectors are actuated by the highest motive, namely, the promotion of universal happiness, by finding some means of obviating or diminishing the suffering and disease both of human beings and of the lower animals, and they can be trusted to take every possible means to save their victims from suffering. However, there are some black sheep in every flock and the medical profession is no exception to this rule.

Some vivisectors may not be philanthropists—they may be moved by ambition to shine in medical circles, to attract attention to their work and get a reputation with unseemly haste—therefore unnecessary experiments may be made. There may also be some who are naturally cruel and careless of the sufferings of animals.

The conclusion then, must be, that in the interest of humanity proper regulation, provided it is not meddlesome interference, would be a good thing.

The best representatives of each side should have a conference and agree as to the terms of the regulations to be recommended, the method of enforcement, and all other points at issue.

PLASTIC SURGERY.

Plastic surgery is one of the oldest and most useful branches of the healing art, and its recent development along the lines of substitution and transplantation forecasts wonderful possibilities in the way of practical results in the future. The transplantation of parts like the skin from one place to another on the same individual (autoplasty), or from one individual to another (hetero-plasty), or of inorganic material from any source (alloplasty), is an old story. Some good work has been done in the substitution of muscles, tendons and nerves, so that, by a simple surgical operation, the lost function of a paralyzed muscle or nerve may be exercised by a healthy one. Good results have followed the transplantation of cartilage and bone—in the making of a nose or repairing a defect in one—or in closing defects in the skull which may be done by sliding into the defect a flap consisting of the outer table and pericranium chiseled from a convenient region.

Experiments have shown the possibility of substituting successfully a section of vein to fill in a gap between the two ends of an artery; also the anastomosis of an artery with a vein, but the vein could not be induced to convey blood through the tissues like an artery. The transplantation of parts of organs or of entire organs has long been a problem of absorbing interest. Think of

the possibility of a man with Bright's disease having two sound kidneys from a man just killed in a railway accident to replace his own diseased organs!

Carrel and Guthrie succeeded in transplanting the kidney in dogs from its normal site to the neck of the animal—uniting the veins and arteries to those in the neck, so that the organ actually carried on its function and produced urine for a short time. Now Lexer (Surgery, Gynecology and Obstetrics, June, 1908) reports his experience in transplanting entire joints from sound amputated limbs to take the place of those removed for disease. In one patient healthy cartilage from the patellar surface of the femur was transplanted to the humerus and ulna of an ankylosed elbow joint suitably prepared. Perfect healing followed and motion was increasing when the patient left the clinic in the fifth week after operation. In the next two patients the entire knee joint was transplanted. In one the ankylosed knee joint was excised, except the patella, leaving a gap of three finger-breadths between the ends of the bones. A corresponding knee joint, except the patella, was taken from a recently amputated limb, sawed to fit the gap, was then put in place and fastened by nails and the soft parts were united around it. In another patient with ankylosis of a tuberculous knee the knee joint was replaced by a sound knee and the bones were fastened by means of wires instead of nails. In both cases good union followed and fairly good motion at the end of five months and nine weeks respectively. In another patient half the knee joint, including the upper third of the tibia, was successfully replaced by a corresponding part from an amputated limb—the patient's tibia being removed on account of sarcoma. Five months later the result was excellent in spite of the fact that the right tibia had been substituted for the left. In another patient the upper two thirds of the left humerus removed for sarcoma, were successfully replaced with part of a femur, one condyle of which was trimmed to correspond to the head of the humerus—a disarticulated arm not being available. In still another patient the entire proximal phalanx of the fourth finger had to be removed for enchondroma and its place was successfully filled with the proximal phalanx of the second toe of a freshly amputated foot.

The experience of Czerny is referred to, who successfully substituted a lipoma for an amputated breast.

PARALYSIS OF THE MOTOR NERVES OF THE EYE IN DIABETES.

That palsies of the extrinsic muscles of the eyes may occur in other affections than

Tabes, Paresis, Tumors of the brain and cerebro-spinal syphilis, is proven by an example reported in *Presse Med.* No. 89, by Dieulafoy. A man of 73 suffering from diabetes suddenly developed a paralysis of the sixth nerve, viz. an internal strabismus; diplopia and vertigo were also present. During the eight days preceding the onset of the ocular palsy the patient complained of pain in the temporal region. According to the author paralysis of the sixth nerve is more frequent in diabetes than that of the third and fourth. Diabetic ocular palsies are not in proportion with the degree of glycosuria. The prognosis is usually favorable. The palsy disappears as a rule in two or three months. Recurrences are not rare. As to the pathogenesis of the affection, the author does not believe in a neuritis of a toxic origin, as there are no records showing an involvement of other peripheral nerves. He is inclined to admit a nuclear cause of diabetic ocular palsy and bases himself upon this fact that the nuclei of the ocular motor nerves are in the vicinity of the area of the fourth ventricle, an experimental injury of which is apt according to Claude Bernard to produce glycosuria. In conclusion the author calls attention to this fact that ocular palsy has never been observed in diabetes insipidus.

CEREBROSPINAL FLUID.

The study of the physiological, chemical and physical properties of the cerebrospinal fluid, also the therapeutic effect of lumbar puncture with or without immediate injection of medicaments—can be summarized according to the latest investigations as follows:

(1) The fluid itself is a product of secretion of the ependymal epithelium and especially of the choroid plexus. It is thrown into the lymphatic circulation either directly through the perivascular spaces which communicate with the subarachnoid space or indirectly. It carries certain unassimilated products of the nervous centers and takes part in the traumatic lesions of these centers and especially of the meninges.

(2) The chemical character of the fluid presents some features which are important from a diagnostic standpoint. The presence of cholin and the increase of phosphates or albumin, speak in favor of an organic affection.

(3) The most important information is obtained from cytological studies and particularly from the leucocytic formula which is as follows: the presence of abundant lymphocytes signifies tubercular meningitis or chronic meningitis in general, and of polynuclear cells as acute inflammatory condition of the meninges.

(4) The toxicity of the cerebro-spinal fluid is feeble. Its study does not offer direct information. An indirect information can be obtained from the study of the metabolism, which perhaps is of greater value.

(5) A bacteriological examination from culture or inoculations in animals can frequently clear up the diagnosis of meningitis.

(6) For therapeutic purposes lumbar puncture can be utilized as a means to relieve pressure of the nervous centres and as a drainage of septic and toxic material. Repeated punctures are advisable in serious meningitis. Puncture with extraction of some fluid followed by injection or medicaments is still in an experimental state; exception should be made for cocainization or stovainization of the spinal canal, and especially the epidural method, which has rendered great service in surgery.

THE SENSORY DISTURBANCES OF CEREBRAL ORIGIN.

The question of sensory disturbances in hemiplegia is not yet entirely settled. There is at present quite a considerable literature on the clinical and anatomical aspects of the subject, but in spite of it the discord between various writers is still as great as ever. Clinically cerebral sensory disturbances can be considered under three groups: (1) On the hemiplegic side there are irregularly distributed hyper— or anæsthetic areas. (2) To the hemiplegia may be added a superimposed hemianesthesia which presents two sub-varieties: (a) a total hemianesthesia may be confounded with hysterical hemianesthesia. (b) the hemianesthesia may not be uniform: the loss of sensation in the distal ends (hand and leg) gradually decreases towards the proximal ends, where it becomes normal or hyperæsthetic. (3) In bilateral hemiplegia there may be an anesthesia covering the entire body.

As to the anatomical localization one must side with Dejerine and Long, according to whom the motor and sensory fibers of the internal capsule are intermingled. To corroborate this view the following three cases may be mentioned. In the first there was destruction of the knee and of the anterior two-thirds of the capsule; clinically there was a hemiplegia superimposed by a complete hemianesthesia. In the second case the cause of hemiplegia and hemianesthesia was softening of the posterior third of the capsule. The cases therefore show that the posterior portions of the internal capsule is of a sensori-motor nature. In a third case the condition was clinically and anatomically similar to the first two.

The pathological findings lead one to this conclusion that whenever only one portion of the posterior limb of the capsule is diseased, the hemiplegia and the superimposed hemianesthesia will not be complete; while in cases with total destruction the motor and sensory phenomena will be complete.

Although this view is not shared by all, the accumulating facts are strongly in favor of it.

HYDROTHERAPY IN TREATMENT OF MENTAL DISEASES.

The following are the generally accepted views concerning hydrotherapy in insanity.

(1). Before this treatment is instituted, the viscera must be examined and treated if necessary. (2). The question of individual reaction to the effect of water should be taken into consideration. (3). While hot water can be administered exclusively in the form of a general bath, cold water is used as friction, shower bath, partial or general bath. (4). Hot water bath is used for from ten to twenty minutes; its effect is to bring on sleep, to enhance metabolism, to improve the nutrition of the skin; it is particularly useful in insane with low vitality. If congestive action is feared, ice can be applied to the head at the same time. (5). Cold water is contraindicated in mental diseases of a depressive type complicated by a low vitality. (6). In paresis cold water should be avoided especially in its application to the head. (7). Cold water is useful to combat agitation in Mania and Delirium tremens, in mental affections accompanied by fevers. (8). Cold water in the form of friction is useful in Neurasthenia and hypochondria, in the form of partial baths for combating sensations of pressure in the head; masturbation is equally benefited by cold water.

ON DISTURBANCES OF ARTICULATIONS IN TABES.

The pathogenesis of articular derangements in Tabes is a matter of conjecture. The clinical phenomena vary from one case to another. Friedlander (Centr. f. Nerv. u. Psych. No. 193) gives an excellent resume of the subject. He reports the result of his observations in 27 cases of Tabes. The earliest disturbance is the sense of posture, the sense of motion becomes involved later. At first the joints of the toes show abnormality and the more pronounced is the ataxia, the more joints are affected in their proximal ends. In cases with slight ataxia the knee- and hip-joints are usually free; when ataxia is marked, the sense of motion is diminished in all joints. Should several joints of one extremity be affected, disturbed sense of motion is less and less marked from one joint to another in the

direction to the root of the limb. When one joint is normal, the next above is as a rule also normal. The degree of disturbance of the sense of motion does not always correspond to the degree of ataxia.

TRAUMATISM OF THE HEAD.

Injuries to the head are very frequently overlooked or treated in an indifferent manner. It is not only the injury which is followed by immediate paretic symptoms, but also and particularly the apparently slight traumata followed by remote symptoms,—that are to be given great concern. Ley (J. d. Neurol. No. 7) reports such a case. A man looking out of an open window, suddenly raised his head; the latter struck the woodwork. He felt pain, but this gradually subsided. However a slight aching persisted in the right parietal region, but two months later a slight prominence appeared in the same region and pain became severe. Four months after the accident a hemiparesis of the entire left side including the face was noticed. There was also a tremor in the affected limbs and exaggerated reflexes. A trial of increasing doses of iodides was made with apparently good results. The patient was shown to several neurologists and the majority advised an operation. Apropos of this patient Glorieux reports the history of a similar case in which in spite of a marked improvement under the iodides an operation was urged. An intracerebral cyst was found. Another writer, De Buck, calls attention to a case of supposed idiopathic epilepsy. The autopsy revealed unexpectedly an encapsulated abscess in the left cerebral hemisphere. A search into the antecedents of the patient showed that he had a fall at the age of 18 and while there were no immediate bad consequences, he developed shortly epileptiform attacks with mental disturbances. There can not be any doubt, remarks the author, of the relationship between the epilepsy and the trauma; latent cerebral abscesses are not rare. The most insignificant trauma may sometimes cause serious lesions of the brain; the latter may develop insidiously, months and years after the accident. This is an extremely important subject from a medico-legal standpoint and prognosis.

ON THE PATHOGENESIS OF HERPES ZOSTER.

Trophic disturbances are not uncommon in Tabes, but a zoster eruption is quite rare. The literature on the subject is very meagre: only a few cases are on record (Hench, Charcot, Westphal, Bernhardt, Head). Rauschke reports an interesting case in Centr. f. Nerv. u. Psych. No. 188. A woman of 66 in the course of two or three years developed the classical symptoms of Tabes:

blindness, bladder disturbances, optic atrophy, Argyll-Robertson pupils, loss of tendon Achilles reflex, diminution of knee-jerks. The patient also suffered from attacks of gastric crises. The first eruption of herpes zoster appeared simultaneously with the first gastric crisis; the second occurred at the time when symptoms of disturbed function of the bladder made their appearance. The author discusses at length the pathogenesis of the affection. As it is well known according to some, Herpes zoster is due to a disease of the spinal ganglia, to others it is the result of a peripheral neuritis and still to others the spinal cord is at fault. Head's conception of the origin of herpes zoster is very interesting. He found alongside of ordinary tabetic changes in the cord also inflammatory conditions in the spinal ganglia. He therefore puts the question, whether the herpes was directly caused by *Tabes* or the latter plays only a predisposing role. Head finds a certain relationship between the localization of the eruption and the inner organs. Rauschke basing himself upon these data finds an explanation for the two outbreaks of herpes zoster in his case. The first attack appeared with the first gastric crisis. The stomach according to Head is in relation with the 7th and 9th thoracic segments; the area of the skin affected with the herpes was at the level of 6th and 7th vertebrae and is supplied by 6th thoracic segment. Although this skin area does not correspond exactly to the segment of the stomach, it is nevertheless in the close proximity; individual varieties in this respect are admitted by Head himself. The second outbreak of eruption occurred simultaneously with bladder disturbances, which consisted of frequent micturition. The depressor of the bladder is in relation with the 11th and 12th thoracic segment; the eruption was at the level of the 2nd and 3rd lumbar vertebrae, which corresponds to the 11th thoracic segment of the cord.

The occurrence of the eruption at the appearance of gastric and bladder symptoms and their mutual relationship as to the localization is an important fact from the standpoint of the pathogenesis of Herpes Zoster. There can be no doubt that the origin of the latter is central.

VERONAL IN INSANITIES.

The treatment of insanities is surrounded with great difficulties. The older drugs employed to combat depression or excitement are unavailable in a number of cases, but fail to respond in some cases. Sulphonal, trional, bromides, chloral, paraldehyde are all good remedies, but none of them is exempt from certain untoward effects.

The new drug known under the name of veronal is no more in experimental stage and from all reports received from abroad and in this country, it appears to be a valuable adjuvant in combating various manifestations or mental affections. In *Insomnia*, in acute *melancholia* veronal gives better results than other hypnotics. It produces a natural sleep and does not disturb the appetite. There is a "cheerful feeling" about the patient when he awakens after a good night's sleep. The lassitude which is usually associated with a large dose of sulphonal is not present when veronal is administered. The average dose in *melancholia* is from 8 to 15 grains. In excitement of acute mania it is necessary to give an initial dose of 15 grains with an additional 10 to 15 grains after a lapse of an hour, if no improvement follows.

Veronal is also efficacious in chronic cases. It is much more easily administered through the tube than sulphonal or trional.

The freedom of veronal from deleterious effects on the digestion and bodily weight is of great advantage in cases of mania, especially where the drug has to be given over long periods. In one case, for example, the drug proved to be perfectly safe when it was given to a man suffering from *delirium tremens* complicated with pulmonary congestion, a dilated heart and marked multiple neuritis.

BLINDNESS IN TABES AND PARESIS.

According to the generally accepted opinion blindness is frequent in *Tabes* and rare in *Paresis*. This fact is undoubtedly surprising in view of the close relationship between these two affections. Andre Leri, in *Journal de Neurologie* No. 7, attempts to solve this puzzling problem and explain the cause of this difference in the two closely allied diseases. He found that if in *averred* cases of *Paresis* blindness occurs sometimes, it is on the contrary very frequent in advanced cases—many years after the onset. If on the other hand blindness is rarely met with in *Paresis*, lesions of the retina are frequent, as for example irregular papillae, dilated bloodvessels, depression of the centre of the papilla. In a certain number of cases blindness is a premonitory, initial or precocious symptom of *Paresis*.

As to *Tabes* according to Gowers blindness is rare. He said (*Lancet* 1883) that when optic atrophy commences in the first stages of *Tabes*, the progressive tendency of the atrophy is often great, while that of the spinal lesion is slight. But when the optic atrophy begins in an advanced stage of *Tabes*, the progressive tendency of the atrophy is considerably less pronounced and in a number of cases the amblyopia remains

stationary or even ameliorated. A number of writers have since admitted that when visual disturbances occur in advanced tabetics, they are usually moderate in degree and lead rarely to blindness.

As an initial symptom blindness is a very frequent occurrence in Tabes. Duchenne, Charcot, Gowers, Leyden insisted upon long duration of Tabes when the latter commences with amaurosis. Benedict, Babinski, Marie observed the favorable course of Tabes when amaurosis is a precocious sign. Leri made a thorough investigation of the subject and an examination of 45 cases corroborated the above statements in all their details. Moreover he observed that moderate lesions of the fundi and functional disturbances of vision are not rare at all periods of Tabes. The same series of cases were examined for mental symptoms and it was found that while the disturbances observed in amaurotic forms of Tabes are not similar to those of Paresis, they however have many points in common and there is no absolute difference. The frequent occurrence of mental disturbance in Tabes with amaurosis, as confirmed recently, by Mott and Cassirer, is very suggestive of the fact that in a certain number of cases the diagnosis could be made: "Paresis with blindness" as well as "Tabes with blindness." It is therefore to conclude that blindness is in same relationship to Paresis as to Tabes: it complicates rarely Paresis as well as Tabes, it precedes or accompanies often the ordinary symptoms of either affection.

PROFESSIONAL NEGLIGENCE.

We do not wish to appear as accusers of our brethren, but in the most fraternal spirit we would like to insist that a doctor ought, from every consideration, to be diligent in the study of his cases; and should never leave anything to chance; nor fail to bring to bear every agent known to the science to cure or relieve conditions with which he meets.

It is unpleasant to say so, but long observation compels us to state that much neglect is found in the practice of many physicians, especially those who are engaged in general practice.

The great variety of diseases presented to this very worthy class of medical men, contribute to this neglect. One reason lies in the fact that they undertake too much work for too little compensation; another is a want of proper equipment to meet the various conditions; and a third reason is we fear the downright application to duty.

Pardon us for a few specifications: How many children are suffering from adenoids, or enlarged tonsils, or rhinitis, or middle

ear inflammation,—diseases that are easily curable—but which are treated, if at all, with some passing suggestion, such as a harmless wash for the throat, or sweet oil and laudanum in the ear?

How many cases of infantile ophthalmia are neglected altogether, or allowed to be treated with breast milk poured into the eye?

How often is incipient tuberculosis passed upon as a bad cold or bronchitis? And even pulmonary hemorrhages are said to have come from the throat, and the fears of parents or patients are allayed until the insidious foe has wrought his ruinous effects in the lungs, and the golden opportunity for saving the case has passed.

How many cases of osteo-myelitis are treated as rheumatism, or neuralgia, with liniments and opiates, until the destructive process has made a hopeless cripple of the sufferer for life.

How many cases of ruptured perineums are overlooked entirely; no examinations having been made after the labor. Or if so patent that it could not have escaped the most casual observer no mention was made of it and no effort made to repair it?

Time would fail us to speak of piles treated with vaseline; rectal fissures with witch hazel ointment; granulated eye lids with copperas water; appendicitis with hypodermic injections of morphine; gall stones with sweet oil; diphtheria with calcedine; hemorrhages of abortion by ergot, &c., &c.

Many of these unfortunates have died in the faith "that the doctor had done all he could."

There are just two classes of men that ought to be allowed to practice medicine, viz: The man that *knows*, and *knows* that he *knows*; the other is the man who when he *knows* that he *doesn't know* is honest enough to confess it, and recommends some one who does know.

DANGER IN MEATS.

Few of us are aware of the danger which lurks in the meats provided for public consumption and served upon our tables from day to day. An incident illustrating this danger was recently related in one of the daily papers. Dr. N. E. Sellers, of Mobile, was served, in one of the public dining places of his city, a steak in which upon cutting through it the doctor discovered a genuine tubercular abscess, as was subsequently proved by microscopic examination. The attention of the city council and board of health was called to the facts, the meat was traced to the dealer and the immediate action of the authorities was promised. This incident forcibly impresses upon us the absolute necessity for inspection of meats in every

city of our country. While commissions and scientists are debating the question as to the identity of bovine and human tubercle bacilli victims of the ravages of the germs may be multiplying; and leaving out that side of the problem the public has a right to be served with meat that is known to be healthy and healthful. If Mobile has a bad meat supply every other city in which the proper precautions are not observed in this respect is equally certain to suffer in some measure. It is true that thorough cooking probably renders innocuous the dangers which lurk in food stuffs, but, in the case of meat especially, the lack of thorough cooking greatly emphasizes the danger. One never knows whether beef, pork, etc., may be free from tubercular disease or not, and it is therefore, the duty of every municipality to make sure that such things are pure and untaunted. A rigid inspection of all animals slaughtered ought to be instituted, and where the slightest suspicion as to their healthfulness can be found, meats should be condemned and destroyed.

DR. BRANHAM GOES TO MEXICO.

Dr. Bolling S. Branham of Oxford, Ga., has recently gone as a medical missionary to Mexico, where he is engaged under the direction of the missionary board of the Southern Methodist Church. Dr. Branham graduated with high honors in April, 1908, from the Atlanta College of Physicians and Surgeons, winning by competitive examination a position on the staff of Grady Hospital; but having volunteered for work in the foreign field, he resigned the honor to take up his chosen work. Dr. Branham will occupy a place on the staff of "Hospital Monterey," the missionary hospital, and the only hospital in the city. We understand that 400 patients are kept in the hospital all of the time, and between 2,400 and 5,000 patients are treated free every year.

A NEW INFIRMARY.

The University of South Carolina is particularly fortunate in the gift and recent completion of a splendid new infirmary, which was erected by Mrs. Ann Jeter, widow of the late Governor T. B. Jeter, of Union, to commemorate the memory of a distinguished alumnus, Aurelius Wallace Thompson. The building is therefore named the Wallace Thompson Memorial Infirmary. The proper handling and treatment of sick students is always a problem for the authorities of large schools and such an institution is one of the great needs of every college and university. Epidemics of contagious diseases often do serious harm to a school, and the control of such out-

breaks among students is necessarily a serious matter.

The design of this infirmary provides a special ward for the isolation and care of those ill with contagious diseases. A ward of eight beds makes ample provision for such cases. Another larger ward containing twelve beds is intended for general medical cases. In addition there are two private rooms intended for the care of very sick patients. Each ward has its special dirt kitchen and besides these a general kitchen with store-rooms is most conveniently located. Quarters are provided for the matron who is always in attendance. Every appliance has been provided for the proper examination, care and treatment of the sick. The building itself is strictly modern, no pains nor expense having been spared to make it complete in every detail. It is only one story high, thus avoiding the need of patients or nurses climbing stairs. Located at the corner of Bull and Green streets, surrounded by several blocks owned by the University, the building will probably never be crowded by other buildings, thus assuring quiet and rest for the sick.

DOCTORS AND DEAD-BEATS.

Wherever or whenever a group of physicians initiate any movement which might militate in any degree in their favor they are met with hostility and criticism by the public voice. Let a city, town, or county medical society adopt and publish such measures as will aid in protecting the physician from dead-beats or by their concerted action enable the doctor to exercise a little greater firmness in collecting his fees, and immediately a howl is raised that the medical profession are a set of grafters. And yet a little thought and observation will convince any fair-minded person that no class of men in the world are more humane than are the men who compose the medical profession. The unostentatious manner in which the doctor always responds to calls which are recognized by him as hopelessly unremunerative stamps him as genuine philanthropist. The average physician is notoriously the victim of the chronic dead-beat. Men who will, without hesitation, fritter away money on needless luxuries, evince a stubborn indisposition to pay the bills of the physician who may have saved their own lives, or those of the members of their family. It is against this class of petty grafters that doctors try to protect themselves. Where a man fully able, but unwilling, to discharge his obligations to his doctor for treatment, he should be required to settle up before his credit be lengthened by another dollar, and the doctor should receive the unanimous backing of

his brethren in these demands. It is only by adoption of such a plan that medical men can hope to put themselves on a plane with business men generally. Organization promotes these interests, and by taking advantage of the strength which union promotes, physicians who are notoriously poor business men, are only acting within their rights. As for charity work, where charity is deserved, the average doctor could make disclosures that would open the eyes of the men and women who plume themselves upon achievements in this direction.

PELLAGRA.

Within the past few months we have heard a great deal concerning the discovery in the Southern States of a disease, the presence of which was hitherto apparently unsuspected. We refer to the somewhat voluminous accumulations of literature on the subject of Pellagra. In this, as in many other instances, our doctors have already shown a most remarkable facility in the discovery of cases, and the rapid multiplication of these cases justifies the suspicion that perhaps many are finding pellagra where the disease does not exist. It is the old story of the tendency of mankind to go to extremes. A few years ago when Dr. Stiles first begun his work on hook-worm disease and the reputation of the prevalence of the malady had become general, there were doctors in every section of the South who immediately begun to discover the presence of the hook-worm in every quarter. All sorts and conditions were found to harbor the parasite, and no society meeting failed to reveal a large number of those who enthusiastically discussed this subject. We do not wish to be misunderstood; we recognize the fact that there is hook-worm disease and that large numbers of the inhabitants of the Southern States suffer from its ravages. We likewise believe that pellagra exists among our people, for the authority of many of those who are reporting cases must be unquestioned. On the other hand we are compelled to believe that numbers of cases are being termed pellagra which are not pellagra at all. According to the best authorities the disease offers a somewhat complex group of symptoms which unfortunately may require accurate and painstaking differentiation in order that several other diseases of close similarity may be eliminated. The Journal has no wish to appear skeptical of the abilities of our Southern doctors, but it does desire to sound a note of warning against fadism and the natural tendency to fly to extremes.

We are cognizant of the fact that at least one factor mentioned by authorities as causative of pellagra is to be found in one of the

staple food stuffs upon which our people largely subsist. Maize, corn, or Indian corn is consumed in vast amounts and in various forms by the inhabitants of the South, and especially among the poorer classes and negroes we find that corn meal and grits form a large portion of the daily diet. So long as the South grew its own corn there was little danger, because when well cured and thoroughly ripened and dried as happens when the ears are left on the standing stalks for a sufficient length of time there is no fermentation and no growth of fungi. Since the civil war, however, the South has become more than ever a cotton growing section, relatively little corn is planted and consequently we are largely dependent upon other parts of our great country for corn. Immense quantities of this are shipped into every State south of the Mason and Dixon line and much of it is really unfit for food for either man or beast. The common practice in the corn growing sections of cutting the corn while still green prevents thorough ripening and promotes a certain amount of fermentation. Stored away after harvesting, oftentimes in damp places, the growth of a fungus called *Reticularia ustilago* is promoted. This diseased corn is what the people of the South import. The spores of the fungus appear as brown powder underneath the epidermis of the grains. Authorities however seem to think that apart from the fungus there is some innate property of corn which helps in the production of the specific poison. The nitrogenous or germinating portion of the corn grains may be diseased, while the outer, starchy part is still good, but all is ground up together for hominy or meal. Dr. E. J. Wood, of Wilmington, says that the railroads yearly pay thousands of dollars for corn that is damaged by water in transit, but that none of it is discarded. He asks the question: why should not the fungus grow and multiply in a wet car as well as in a damp cellar? Dr. Searcy, in an article in the Journal of the American Medical Association, says that he had some of the suspected corn examined and that the report from Washington condemned it as unfit for any purpose. The latter authority says further that the corn crop in 1905 was largely a failure, and he claims that it was in this year that the disease made its appearance.

In certain parts of Europe, particularly in northern Italy, where pellagra has for a long time been very prevalent it is said that the quality of the corn raised is very poor and that it is picked green and stored in damp places. These conditions are to a certain extent duplicated in our own country.

We are awaiting with interest the publication of the studies of Dr. Babcock, of Columbia, S. C., to whom is due much of the credit for the first recognition of pellagra in this section, and who for the past several months has been in Europe where he has had opportunity of seeing the disease in all its stages. Meanwhile the authorities of our Southern States should be made to realize that the presence of this disease becomes a question of the greatest economic importance to our people. It is impossible that four-fifths of the inhabitants of these States could change their modes of life so far as to discontinue the use of so staple an article of diet as corn. There must either be a rigorous inspection of corn brought in from other sections or the South must put up a barrier against corn grown in other States and revert to corn growing itself.

DANGER IN DRINKING-VESSELS.

Without being in possession of accurate statistics on the subject we have for a long time been impressed with the belief that the promiscuous use of common drinking-cups by large numbers of persons is necessarily responsible for the communication of many diseases and indeed we are not alone in the belief. For several years the potential danger which exists in such unsanitary methods has been a fruitful source of literary inspiration and it is no new thing to find a discussion of the subject in periodicals, both lay and scientific. On more than one occasion we have privately expressed our opinion that the modern soda fountain must be one of the most prolific disseminators of disease. But the drinking cup in use at public drinking fountains, saloons, on trains, in hotels, in churches and in schools are also quite as responsible. In a recent issue of *The Technical World Magazine*, Prof. Alvin Davison, of Lafayette College, contributed a most interesting article in which he gives some valuable facts bearing on this subject. The Literary Digest of August 29th published an abstract of this paper in which the statistics collected by Prof. Davison are reviewed. He investigated the deposits on various drinking vessels by means of direct microscopic examination, by cultures, and by animal inoculation. One cup of clear thin glass which had been in use in a school for nine days was broken into a number of pieces and properly stained for microscopic study. It was found that the human cells scraped from the lips of drinkers were so numerous on the upper third of the glass that the head of a pin could not be placed anywhere without touching several of these bits of skin. The saliva by running down on the inside had carried cells and bacteria to the bottom.

By counting the cells on different areas it was estimated that the cups contained over 20,000 human epithelial cells. As many as 150 germs were seen clinging to a single cell, and very few showed fewer than 10 germs. Between the cells were thousands of germs left by smears of saliva from the lips of drinkers. Not less than a hundred thousand bacteria were present on every square inch of the glass. Most of these were of the harmless kind which always exist in the mouth in greater or less numbers; some were apparently saprophytic, feeding on the bits of tissue and cells. The examination also showed that many of the germs present were pathogenic, among them the tubercle bacillus, pneumococcus, diphtheria bacillus, &c.

Mortality statistics show that diphtheria, meningitis, bronchitis, tuberculosis, pneumonia, and gripe are responsible for nearly 400,000 deaths annually in the United States. This fact indicates that the germs of these diseases produce in a single year more than a million cases of serious illness. It is known too that these diseases are caused by the entrance of their causative agents by way of the mouth and air passages. It is therefore not difficult to appreciate the danger which lurks in using common public drinking-vessels. The financial loss to the country and the mental anguish as well as bodily suffering due to preventable diseases, Prof. Davison says, "call loudly for the banishment of the unsanitary and filthy common communion-cup, as well as the public drinking-vessels befouled with human excretions shielding the darts of death." He concludes by giving figures to show that wherever hygienic measures have been adopted in a community sickness and death have decreased. By such measures New York City reduced her death-rate from 25 per thousand to 18 per thousand and during the period from 1890 to 1905. Within the same years Chicago has reduced her death-rate from 19 to 14 per thousand.

SHIPMENT OF INFECTIVE ARTICLES THROUGH THE MAILS.

It may be of some interest and certainly of considerable value to physicians to find information herewith concerning the United States postal regulations regarding the shipment through the mails of sputum, urine, pathological tissues, &c. Not only because knowledge of these laws may save those who are in the habit of sending such things through the mails from the trouble which their violation might entail do we speak of these matters, but also because it gives opportunity for us to emphasize the danger of spreading disease, if by any chance the packages containing these oftentimes viru-

lent products are broken—to say nothing of the unpleasantness of handling articles contaminated by them—we say these reasons impel us to offer some remarks and to publish such rules as the laws require shall be obeyed. Only recently several Virginia physicians have found themselves considerably embarrassed by the threat of proceedings against them because of violation—doubtless through ignorance—of these regulations. A package containing sputum, if not properly packed, may be broken and the contents transmit dangerous germs to those who must handle the mails. And not only may these persons be endangered but other mail matter becomes contaminated and thus virulent matter be disseminated far and wide. It is no doubt possible that people far away from the source of the infection may have become the victims of disease through such carelessness on the part of doctors.

The regulations now governing the transmission of such matter through the mails, found in Section No. 494 of the Postal Laws and Regulations, are as follows:

1. Specimens of diseased tissue may be admitted to the mail for transmission to United States, State or municipal laboratories, only when inclosed in mailing packages constructed in accordance with this regulation.

2. Liquid cultures, or cultures of micro-organisms in media that are fluid at the ordinary temperature (below 45 degrees C. or 113 degrees F.) are unavailable. Such specimens may be sent in media that remain solid at ordinary temperatures.

3. Upon the outside of every package of diseased tissues admitted to the mails shall be written or printed the words "Specimen for bacteriological examination. This package to be treated as letter mail." No package containing diseased tissues shall be delivered to any representative of any of said laboratories until a permit shall have first been issued by the Postmaster-General certifying that said institution has been found to be entitled, in accordance with the requirements of this regulation, to receive such specimens.

4. Packages used for conveying through the mails pathological specimens for bacteriological examination for diagnosis in cases of suspected diphtheria, tuberculosis and other communicable diseases, shall be constructed and prepared as follows:

(a) The receptacle for moist specimens of diseased tissues shall be strong glass vial or test tube, having a capacity not greater than two drams. The vial shall be covered and made water-tight by the use of a metal screw cap and a rubber or felt washer which has been immersed in melted paraffin, or, if

a test tube be used, it shall be covered with a tightly-fitting rubber cap.

(b) The vial or test tube shall be placed inverted in a circular tin box, which shall be made of I. C. bright tinplate, and have flush or counter-sunk bottom and soldered joints, and not be smaller than one and one-eighth inches in diameter and three inches long, nor larger than two and one-quarter inches in diameter and five and one-half inches long. This box shall be closed by a metal screw cover and a rubber or felt washer, or tightly-fitting metal-sliding cover, and shall be so packed with absorbent cotton, closely laid, that the glass or test tube contained therein shall be evenly surrounded on all sides by cotton.

(c) The tin box shall be placed inverted inside of a larger tin box similar to the one already described, which should snugly receive the specimen box. Upon the inside of the sides and bottom of this outer box there shall be a lining of compressed paper not less than three-sixteenths of an inch in thickness. This outer tin box shall be closed by a metal screw cap and a rubber or felt washer. This outside box may also consist of hardwood, in the form of a block with a cylindrical hole bored in one end and extending to within not less than one inch of the opposite end; the open end to be closed with a wooden or metal screw cap with a rubber or felt washer. Or the outside box may be a cylindrical wooden box, having a screw cap and washer. The thickness of the sustaining part of the wooden tube must not be less than one-quarter of an inch and be lined same as the tin box.

(d) The receptacle for dry specimens of diseased tissues shall be a glass test tube three inches in length and one-half inch in diameter. This test tube shall be inclosed in a circular tin box similar to those already described, but measuring two and one-quarter inches in diameter and five and one-half inches in length, and be lined upon its sides and bottom with compressed paper not less than one-quarter of an inch in thickness. The test tube shall be closely packaged in cotton, and the box shall be closed by a metal screw cap and a rubber or felt washer.

ACUTE YELLOW ATROPHY OF THE LIVER.

This rare disease, occurring most commonly in women and characterized by a rapid diminution in the size of the organ, accompanied by degeneration and subsequent destruction of the hepatic cells, hemorrhages from any part, jaundice and delirium, has always puzzled pathologists. Its etiology is exceedingly obscure and little of importance has been added to our knowl-

edge of the disease since it was described some hundreds of years ago by Vercelloni. Not infrequently one sees questions on this subject in examination papers, and from the importance apparently given it the lay mind might be tempted to regard it as being about as common as, say, chronic bronchitis. As a matter of fact, however, there are many pathologists of wide experience who have never seen a really typical acute case. A recent issue of the *Edinburg Medical Journal* contains a highly interesting summary of our knowledge of acute yellow atrophy by Dr. Stuart M'Donald. Omitting the various factors, such as profound mental emotion, bacteria, &c., which hitherto have been considered to play an important role in the etiology of the disease, he finds an apparent connection in many cases with syphilitic infection. It must, however, be said that there is probably much in favor of the view that in the causation of the disease we may have at least two factors at work. It may well be said that the typical condition is produced only when some special virus acts on a previously damaged liver. During pregnancy and the puerperium we know that the liver, as well as other organs, may show evidence of degeneration through poisons of a metabolic nature, and the occurrence of many cases in women may be due to this fact plus some other active factor. The disease is known to occur in the course of acute infective conditions and for some time, in Germany particularly, its association with syphilis appears to be recognized as something more than accidental. Fischer, in a recent paper, reported a case occurring in the course of a syphilitic infection in the period of the early secondary symptoms. It was in 1889 that Engel-Reimers first drew attention to the association of the two diseases. In 1898 Richter collected forty-one such cases, but in a criticism of his work by Veszpremi and Kanitz ten of these have been excluded as not affording sufficient evidence of syphilis as a causal factor. The latter observers in 1907 recorded another apparently undoubted case occurring about five months after a syphilitic infection. The case terminated fatally in twelve days and although great numbers of spirochetes were found in the papules of the skin eruption, none could be demonstrated in the liver. These observers considered that the syphilitic toxin was the essential causal factor. In Buraczinsky's two cases, which likewise occurred in the course of secondary syphilis, spirochetes were not found in the liver, but the acute yellow atrophy was attributed to the toxins. Fischer's case occurred in a patient who had acquired syphilis some five months before the hepatic symptoms appeared. He

could discover spirochetes in none of the internal organs, but he likewise concludes that the toxins of syphilis or their accompaniments are to be regarded as important factors.

Most writers on this subject agree that this most dangerous complication of syphilis does not prove the primary disease to have been of a particularly virulent type. It may occur during the course of an ordinary attack and it is found only in acquired syphilis, especially in the period of early secondaries or early relapses. There is no record of acute yellow atrophy in congenital syphilitic children whose livers may be damaged to a very considerable extent, and associated with the presence of enormous numbers of spirochetes. The conclusion is therefore inevitable that, if syphilis does lead to acute yellow atrophy of the liver, it must do so through the general toxic condition and not in virtue of some local production of the virus in the liver itself. M'Donald believes that the special distribution of the disease and its special intensity in the liver rather indicates the alimentary tract as the source of the special exciting agent, whatever that may prove to be, and in the most carefully recorded cases of primary acute liver atrophy we do find evidence of some preliminary gastro-intestinal trouble. The most reasonable view to take would appear to be that the essential cause of acute yellow atrophy is some poison, possibly of microbic nature, produced in the alimentary tract and acting on a liver previously damaged, or whose function at least has been disturbed. That such disturbance of the liver does occur in syphilis appears to be undoubted. Engel-Reimers found jaundice running a perfectly innocent course in about 2% of all his cases of syphilis, and Fischer states that from a study of the records of the Dermatological Department of the Rudolph Virchow Krankenhaus in Berlin he would put the percentage of the occurrence of this simple icterus in syphilis as high as 1% at least. It is not unreasonable to suppose then that syphilis acts merely as the predisposing factor, just as pregnancy may do, and that the exciting agent which has still to be discovered is derived from the alimentary tract.

SOME HEALTH PROBLEMS.

That the common pestiferous house-fly is a potential danger to people in that many diseases are transmitted through their agency is a fact not to be disregarded. During the past summer municipal authorities have devoted more than the usual amount of attention to spreading knowledge among the laity concerning the danger which lies in

these insects, and in many places reports have been made of efforts directed toward their extermination. All of which means that there are developing tendencies all over our country which mean that the public is awakening to the necessities of improved sanitation and better hygienic conditions. Whatever may be the causes it is a fact to be recognized that throughout the whole South the summer now ending has been one in which there has been an unusually small number of epidemics of any kind. On the whole one might reasonably convince himself, from even a superficial survey of the health conditions of Southern towns and cities, that the summer season has been one of unusual healthfulness. Accurate statistics for the whole of the hot months are not at this time available but reports from numerous health boards throughout this section of the United States would indicate from the low mortality percentages that the doctors have found little to do.

Thus incidentally we remark on the absence of epidemic disease, but we wish to make it plain that we do not consider that there is any important connection between these facts and the number of flies, for indeed our personal observation would seem to make it certain that there has been no diminution in their prevalence. On the other hand facts force us to believe that flies play an important role in the dissemination of infection once it has arisen. They have repeatedly been found with their bodies and legs, as well as internal organs, contaminated by such germs as cause typhoid fever, tuberculosis, dysentery, &c. Dr. L. O. Howard, chief Entomologist of the Department of Agriculture at Washington, during the past few months, has been making a series of studies which have demonstrated the fact that where flies are thickest typhoid fever is most prevalent. Whether any real relation exists between these facts is more difficult of proof. However that may be we are bound to believe that there is a sufficiently close relationship to impel people to adopt measures against an agent of such a great potential menace. It is easy to understand how a fly in crawling over matter containing typhoid or other germs picks them up on his body and limbs and ingests them by the thousands perhaps. The insect then flies away, to a greater or less distance, and upon whatever it alights the poison is left. It may crawl upon eating or drinking utensils, upon food, drops into the milk—there are many ways in which the fly might communicate his load of death to an uninfected human being. Plates of gelatin exposed where flies could alight on them and placed in an incubator have, after forty-eight hours, shown clearly

the track of the crawling pest as his foot-prints were written in clumps of bacteria. Flies caught in houses where there were typhoid patients and examined under the microscope and by the proper culture tests have been found to contain great numbers of typhoid bacilli.

It is an impossibility to disinfect the fly; it is not practicable to teach him to wipe his feet, but they can be exterminated utterly, and people and food stuffs can be protected from them by proper screening of houses and stores, markets, dairies, &c. The fly can breed only in filth and dirt. Horse stables are the most prolific source and they are attracted by every kind of filth. It is a problem for the health authorities to solve just as there is a problem for them to solve with respect to the mosquito.

That many of our thriving towns and cities are full of malarial disease is due to no other cause than the vast numbers of these merry, singing torturers, and their increasing numbers in many inland towns is a reproach to the enlightenment of our people. Take a community of working people where malaria is prevalent and count the financial loss sustained by that community from the disablement of its members because of their sufferings from the disease. The expense of eradicating the mosquitoes and thus banishing the disease could not nearly equal the loss in money to that community during a single season.

These problems have been met and solved successfully in many towns and cities. In fact it can be done everywhere, but not without work and disappointment and heart burnings, for the ignorance of the public and the inertia of those in authority must all be combatted and overcome ere much can be accomplished.

THE WASSERMAN SYPHILIS REACTION.

The discovery of the spirochæte pallida and its etiological association with the disease syphilis to all intents and purposes has been accepted by the scientific world as a fact and the discovery has added substantially to our knowledge of a disease which is one of the oldest of which accurate knowledge exists, and at the same time one of the most common. In spite, however, of its prevalence and antiquity there is probably no disease which is or has been oftener confused with other affections, and especially heated have been the controversies over what we have more latterly learned to speak of as parasymphilitic manifestations, or diseases—most prominent among which we might mention are Locomotor Ataxia and Dementia Paralytica.

The modern development of serum reactions has added greatly to our knowledge

of disease and in many instances has enabled the physician correctly and accurately to differentiate one disease from another. Each step thus marks our progress toward the final establishing of medicine as an exact science. In the case of syphilitic infection the demonstration of spirochetes probably enables one to diagnosticate the disease with great positiveness, and yet there are cases in which for one reason or another this test is not applicable. The discovery by Wassermann of a serum reaction which appears to be positive in the great majority of cases gives promise of becoming a very definite aid in diagnosticing the existence of syphilis. According to an article in *The Hospital*, which summarizes in very concise manner the essential characteristics of the reaction, Wassermann's reaction is quite unlike Widal's serum reaction for the diagnosis of typhoid fever. It does not depend upon the clumping of the spirochæta pallida. On the contrary it is one of an entirely different order of serum reactions, the recent discovery of which opens up a wide field of possibilities in the way of specific means of diagnostics.

The nomenclature that has arisen in connection with modern theories of immunity is very complex, and there is no possibility of defining every new term here's probably the significance of the word "complement" will be sufficiently understood to allow of the following brief explanation:

An antigen is any substance which, injected into the living tissues, causes the latter to react and produce antibody. It has been found that antigen and its corresponding antibody have the power of fixing complement.

This may not at first sound very helpful; but to continue:—

Red blood corpuscles may be sensitized in such a way that the addition of complement to the test tube containing them causes their solution—*i. e.*, it causes the contents of the test tube to become laked.

If an extract of the liver of syphilitic infants along with blood serum from a syphilitic patient is added to the test tube containing the sensitized red corpuscles it has been found that they do not become dissolved or laked. Complement has been fixed by the combined action of the syphilitic liver extract and syphilitic blood serum—antigen and antibody, and this removal of complement prevents the solution of the sensitized red corpuscles. This is the basis of Wassermann's syphilis serum-reaction.

The blood-serum of the suspected case is tested in the laboratory against the sensitized red cells, serum from a healthy individual being used as a control. According as the red cells become laked or remain un-

laked the patient gives a negative or a positive Wassermann reaction for syphilis.

Says the writer: "The possibilities of this method of diagnosis, both for syphilis and in other specific diseases, are very obvious; so far, however, the matter is in its infancy, and many cases have yet to be tested by independent observers before its proper value can be assigned." Fleischman has found it positive in a series of 192 cases in 73%. All these cases were known to be syphilitic.

NOTICE.

We understand that there is an opening for a young physician in Rockingham, N. C., for practice among the employees of Steele's Mills. It is likely that Mr. Robt. L. Steele, president of the mills, Rockingham, N. C., will give any information desired, to doctors who may be interested.

YELLOW FEVER.

During the summer just passed there have been few alarms concerning outbreaks of yellow fever in those countries where it is usually very prevalent. The danger is, however, not yet over, since the hot season will persist for a considerable period in the hot zones. Reports of the existence of cases in Cuba have reached us from time to time, but evidently they have been sporadic and nothing approaching an epidemic has yet been seen.

On September 14th a case of yellow fever in Havana was officially reported and an order issued forbidding the officers and men at Camp Columbia from coming into the city.

A second case was reported September 15 and the Health authorities sent out warnings that would put the States on their guard. In the newspapers we find that on September 15, State Health Officer Brumby, of Texas, received a telegram from Acting Surgeon General Glenn at Washington, advising him of the appearance of another case of yellow fever at Havana.

Dr. Brumby at once tightened the quarantine against Havana on passengers leaving there for points in Texas. Heretofore passengers were permitted to land at any Texas port immediately upon arrival. Now they will be detained for a period of five days from the time of departure from Cuba. Reports from the city of Merida, capital of Yucatan, declare that on September 13 two authenticated cases of yellow fever were in the pest-house there and that four suspected cases were under observation. At New Orleans a quarantine against Ceiba, Honduras, on account of yellow fever there, was announced on the 26th by Dr. J. H. White, of the Marine Hospital Service. No report has yet been heard as to the extent of the

fever in Ceiba. The quarantine regulations include the placing of a medical inspector aboard every vessel plying between Ceiba and New Orleans.

Editorial News Items.

Association of the Seaboard Air Line Railway Surgeons.

The Association of the Seaboard Air Line Railway Surgeons will be held in Columbia, S. C., October 27th and 28th, 1908. The indications are that it will be a largely attended meeting. The officers of the association are as follows:

President, Dr. L. S. Oppenheimer, Tampa, Fla.; first vice-president, Dr. J. G. Dean, Dawson, Ga.; second vice-president, Dr. H. M. Wilder, Charlotte, N. C.; third vice-president, Dr. E. H. Terrell, Richmond, Va.; secretary and treasurer, Dr. J. W. Palmer, Ailey, Ga. Executive committee: Dr. Jas. R. Rogers, chairman, Raleigh, N. C.; Dr. Southgate Leigh, Norfolk, Va.; Dr. J. W. Corbett, Camden, S. C.; Dr. John W. Blair, Monroe, N. C.; Dr. John H. Miller, Cross Hill, S. C. Chief Surgeon: Dr. Jos. M. Burke, Petersburg, Va.

Dr. J. W. Babcock, of Columbia, S. C., after having spent the past summer in European countries in company with United States Senator B. R. Tillman, has returned to his home. During his stay in Europe Dr. Babcock enjoyed the opportunities afforded him for study, especially in Italy, of pellagra, the disease about which we are hearing so much here in the South and in which the doctor is especially interested. Indeed he is one of the very first who suggested that the disease does exist in the Southern States and his purpose in visiting European countries was to find whether or not the disease he has observed among his cases is identical with the disease which in Europe is called pellagra. He is thoroughly convinced that we have pellagra to deal with and that the disease is on the increase.

Since his return Dr. Babcock has found himself in considerable demand. Societies and colleges are anxious to hear him. Only recently, during the closing days of September, he was invited to Charlotte to hold a clinic before the county Society and students of the North Carolina Medical College. A case of pellagra, which has been discovered in one of the local hospitals, was the subject, and in addition to some highly interesting remarks on diagnostic symptoms and clinical manifestations, Dr. Babcock quoted from the copious notes he has made during the period of his study. His audience was highly pleased and we have heard

many most complimentary remarks on his lecture.

Dr. J. A. Childs, a prominent resident of St. Petersburg, Fla., with his family spent two months during the past summer at Hickory, N. C.

Dr. F. M. Durham, of Blackstock, S. C., has recently removed to Columbia, where he has hung out his shingle as specialist in the treatment of diseases of the stomach.

Medical Society of Virginia.

The thirty-ninth annual meeting of the Medical Society of Virginia will meet in Richmond Oct. 20th to 23rd. The sessions will be held in the Jefferson Hotel Auditorium.

The opening session will be held Tuesday night, October 20th, the address of welcome being delivered by Mayor Richardson. A response will be delivered by Dr. Raleigh W. Martin, and there will be a number of reports and addresses. Papers on a great variety of medical and semi-medical topics will follow each day. Of especial interest to country practitioners will be the hospital clinics conducted daily at the Virginia and Memorial Hospitals.

The present officers of the association are Dr. William F. Drewry, of Petersburg, president; Dr. Landon B. Edwards, Richmond, secretary; Corresponding Secretary, Dr. John F. Winn, Richmond; Treasurer, Dr. R. M. Slaughter, of Theological Seminary; Executive Committee, Dr. Paulus A. Irving, chairman.

The local committee of arrangements is as follows: Dr. Stuart McGuire, chairman; Dr. Ennion G. Williams, Dr. George Ben Johnston, Dr. McGuire Newton, Dr. C. R. Robins, Dr. R. D. Garcin, Dr. W. F. Mercer, Dr. M. W. Peyser, Dr. T. A. Parker and Dr. B. L. Taliaferro.

Savannah Doctor Arrested.

Dr. A. Rosett, of Savannah, Ga., was recently indicted as a result of the findings of the coroner's jury that a young woman of that city had come to her death through the performance of a criminal operation by Dr. Rosett upon her. A young man was held as accessory. The trial has not yet been held.

Hydrophobia Again.

The Laboratory of the State Health Department at Raleigh is finding plenty of work to do in the newly established section for the treatment of hydrophobia. Numbers of cases from all parts of the State have come to Raleigh for treatment against bites

of dogs. In the majority of cases the animals have been shown to have been rabid and the immense value of the institution is already becoming apparent. The city of Raleigh has itself recently experienced a very real excitement because of the wounds inflicted upon several citizens by a mad dog. Nine persons bitten by a rabid animal in that city have been under treatment by Dr. Shore, director of the laboratory, and so far none of them have shown any evidence of the disease.

The people of the State have come to know very generally that treatment for this terrible malady may be had near at home, and that the facilities for applying it are as good as can be found anywhere.

Medical Maxims.

To err is normal: to cure divine.

A stitch in time saves embarrassment.

It's an ill wind that blows the doctor good.

A patient in the office is worth two in the grave.

An ounce of pretension is worth a pound of cure.

Never operate during periods of depression, particularly financial.

It is better to have operated and lost, than never to have operated at all.

When patients relapse, it's nature's fault; when they die, it's their own.—Life.

East Tennessee Medical Association.

The eighteenth annual meeting of the East Tennessee Medical Society was held Sept. 24 and 25 at Newport, Tennessee. President W. J. Matthews presided.

The convention was opened with prayer by the Rev. J. S. Black. The address of welcome was made by Dr. C. W. LaRue, and Dr. E. R. Zemp, of Knoxville, delivered the response. Dr. S. M. Miller, of Knoxville, responded on behalf of the profession.

Some highly interesting and valuable papers were presented. Among them we enumerate the following:

President's Address—Dr. W. J. Matthews, "The General Practitioner."

"The Importance of Laboratory Diagnostic Methods in Diseases of the Digestive System"—Dr. C. P. McNabb, Knoxville.

"Omentum, the Surgeon's Friend"—Dr. George R. West, Chattanooga.

"Some Modifications in Surgical Technique" (illustrated)—Dr. S. M. Miller, Knoxville.

"Shock, Its Cause and Treatment"—Dr. C. J. Carmichael, Knoxville.

"Alcohol, Physiological Action and Therapeutics, Indications"—Dr. E. R. Zemp, Knoxville.

"The Importance of Early Diagnosis and Correct Treatment of Some of the Commonly Occurring Fractures"—Dr. H. H. McCampbell, Knoxville.

"Report of Surgical Cases"—Dr. C. P. Fox, Greeneville.

"Eyestrain"—Dr. C. H. Davis, Knoxville.

"Ways and Highways of the Great White Plague"—Dr. S. D. Acuff, Knoxville.

"Advice to Consumptives"—Dr. J. M. Masters, Newport.

"Use and Abuse of Atropia in the Practice of Ophthalmology"—Dr. C. M. Capps, Knoxville.

"The Choosing of Method of Procedure for the Relief of Nasal Incapacity"—Dr. C. J. Broyles, Johnson City.

"The Salines"—Dr. A. M. Blanton, Romeo.

Dr. Sutton Endorsed.

The Norfolk Medical Society at a recent meeting endorsed Dr. Starke Sutton for the position of health commissioner of the city of Norfolk, Va. The friends of Dr. Sutton declare he received the endorsement of the society because the members believed that he would give the best administration of the affairs of the Health Department.

Danger From Plague.

At the twenty-third annual meeting of the State and Provincial Boards of Health held in Washington, D. C., during the latter part of September, Dr. N. K. Foster, who is president, emphasized his belief that the gulf and Atlantic coasts of the United States are in danger of an infection of the bubonic plague. He expressed the belief that such an infection already may have taken place.

"I firmly believe," said Dr. Foster, "that the United States will become generally infected, not from California, but from ports having communication by water. My object is to sound a note of warning and to put you on your guard against a dangerous foe."

He said no effort should be spared to guard against its introduction and warned his hearers that every city and town on the gulf and Atlantic coasts should begin now to destroy the rodents which carry infection, and prepare for the invasion threatened.

A resolution memorializing congress to establish a national leprosarium was discussed, but no action was taken.

Dr. Rand is Hurt.

Dr. Edgar Rand, of Huntsville, Ala., was struck by an electric car on the night

of Sept. 1, while driving on West Clinton street. The buggy was overturned and smashed. Dr. Rand and his horse were badly bruised but not seriously injured.

Dr. John W. MacConnell, who spent last year as house surgeon at the Presbyterian Eye and Ear Hospital of Baltimore, has opened his office at Davidson, N. C. He is physician to Davidson College, and limits his other work to diseases of the eye, ear and throat.

Medical Colleges Enrolling More Students Than Ever.

It is said that notwithstanding the higher entrance requirements, the equivalent of four years of High School work instead of two, the Medical College of Virginia registered on its opening day, more students than on the opening day of last session. Counting old students, there were present on the first day of the session 114, of whom 44 were new men. At the University College of Medicine the enrollment was also reported as excellent.

Virginia Tuberculosis Sanatorium.

A committee appointed by the Virginia State Board of Health has been inspecting a number of sites for the establishment of a State sanatorium for the treatment of tuberculosis. Dr. Ennion G. Williams, State Health Commissioner, has piloted the party to the various sites offered. The committee on location consists of S. P. Latane, Winchester; J. B. Fisher, Chesterfield; C. R. Grandy, Norfolk, and Dr. Williams. It is the hope of the Health Board to establish an open-air camp as soon as the site is purchased, so as to begin the treatment at once, and let the buildings follow as the appropriations come.

Property Left to Doctor.

The late Maj S. G. Ryan, an eminent lawyer of Raleigh, who was found dead in bed recently, left all his property to Dr. Hubert Haywood, a prominent physician of that city, because of the doctor's long and zealous attention to Mr. Ryan's wife, who was for a number of years an invalid. His property is estimated at several thousand dollars, principally a bank account.

Society Meeting.

The Chattanooga and Hamilton County (Tenn.) Medical association held their regular meeting in Chattanooga on the evening of Sept. 4. Reports were heard from several committees and Dr. George R. West, who has recently spent a week in Rochester, Minn., delivered a very interesting talk on

the operations he had witnessed while at the Mayo's clinic. The name of Dr. M. H. Stuart was presented by the president for election to the association, and he was unanimously elected.

Internes Resign in a Body.

All the internes at the Memorial Hospital in Richmond, Va., recently sent in their resignations, their action being the result of the dismissal of Dr. S. P. Epperson, one of their number, whom they considered to have been wrongfully suspended from the staff. Dr. Epperson was dismissed because of his infraction of certain rules relating to the social intercourse between doctors and nurses. The other internes, including Drs. J. W. Stephenson, S. E. McDowell, E. C. Register, W. R. Wallace and L. D. Walker, thereupon resigned and their resignations were instantly accepted. This action was taken by the internes, they declaring that they could not conscientiously remain when they knew themselves to be guilty of the same violation of rules.

Medical College Opens.

The third annual opening of the Mississippi Medical College, located at Meridian, Miss., occurred Oct. 1, at the institution's new home. More than 65 new students were enrolled the first day with prospects of as many more. In its new home the college has every convenience desired for the comfort and assistance of students and faculty. The building was thrown open to public inspection and its arrangement and perfect order made a decided impression upon those who visited it. Among the speakers of the occasion were Drs. Clarke, Tackett and Hairston.

Dr. Albert Anderson, of Raleigh, having resigned as a director of the State Hospital for the Colored Insane at Goldsboro, Governor Glenn appointed E. A. Darden, of Wilson, to succeed him.

Special Camps for Tuberculosis.

An important step toward controlling tuberculosis in the East Mississippi Insane asylum has been taken by the board of trustees. Superintendent Buchanan asked the trustees to devise some means of separating the patients from these other inmates of the asylum so that there would be no danger of a spread of the disease, and so that the consumptives might be given the proper treatment for their affliction.

As a result the trustees ordered the erection of two tuberculosis camps, one for males and the other for females. The camp

will consist of cottages of a type especially designed for consumptives.

Provisions for the Care of Insane Patients.

The State Hospital Commission, created by the last Legislature to manage the disposal of the half-million dollar appropriation which was set aside to provide additional facilities for caring for the insane of this State, has so far given the Central In-sane Asylum at Raleigh, the largest share. It seems to be the idea of the authorities to make the Raleigh institution equal to the Morganton asylum, and this accounts for the action of the Commission. The Central Hospital at Raleigh has received a total of \$265,000; the Western Hospital at Morganton \$20,000; and the Eastern Hospital at Goldsboro (for colored patients) \$33,000.

Watson at Chester.

Dr. J. J. Watson of Columbia, by special invitation, attended the monthly meeting of the Chester County Medical association, which was held in Chester, S. C., Sept. 7. By request he read before the doctors a paper on the subject of pellagra, a disease which is now engaging the attention of the medical profession and attracting increasing notice in America. The paper was most attentively heard by the Chester physicians, Dr. Watson's treatise being based upon information obtained by him during his recent visit to Italy made for the purpose of study and observation of the disease.

Dr. Linder Acquitted.

The trial of Dr. W. L. Linder of Union, S. C., who, in the latter part of last November, shot and killed a negress named Lucy Lipsey, resulted, Sept. 10, in an acquittal for the doctor.

Much interest has centered in the case, because the woman who met her death was the one who had, during the month of March preceding, gone to the private office of Dr. Linder, and after a short conference with him, when he went to answer a knock at the door, had shot him in the back with a revolver, inflicting a wound which for some time was considered critical, but from the effects of which he recovered.

At the trial some very sensational testimony was brought out in the form of letters from the woman which contained threats against the life of Dr. Linder. She was afterwards released on bond pending appeal to the supreme court, but before the decision was rendered she was shot by Dr. Linder on Main street. Dr. Linder's plea was self-defense, evidence being introduced to show his life had been threatened by the woman.

Asiatic Cholera.

The wide-spread prevalence of Cholera Asiatic in both Europe and Asia has begun to assume an aspect of such tremendous menace that the entire world has felt alarm at its spread. In the countries of Asia, in the Philippine Islands and in Russia the disease has spread with great rapidity, and within the past month victims have been numbered by thousands. All Europe has been stirred by its approach through Russia. In St. Petersburg the situation has become appalling and cases are said to exist in Berlin. It is a matter of special concern to the people of the United States to know that the epidemic has also reached such alarming proportions in Manila, one of the ports at which the great American fleet is to be entertained on its world cruise. New cases have been appearing in that city at the rate of about fifty daily, and while reports would indicate that the health authorities have the situation well in hand, nevertheless the existence of so deadly a communicable disease at a port where several thousand American officers and seamen must inevitably be exposed to the infection to a greater or less extent would seem to warrant an expression of fear that the visit of our naval fleet is unjustifiable and rash. Yet in spite of the danger the authorities at Washington have decided that the itinerary as arranged shall be carried out and the fleet has already arrived at Manilla. Thence it goes to other Oriental ports, and while it may never be known whether any of our men became victims of cholera, still we are justified in our alarm, as are others who are cognizant of the situation as reported.

Medical Society Meets.

The Iredell-Alexander Medical Society met in regular session at Statesville, N. C., Oct. 6th. The meeting was not only largely attended, but was also unusually interesting. The annual election of officers was held with the following result: Dr. T. E. Anderson, of Statesville, re-elected president; Dr. E. A. Hall, of Iredell county, elected vice-president; Dr. J. E. McLaughlin, of Statesville, re-elected secretary and treasurer. Dr. McLaughlin was elected a delegate to the next meeting of the North Carolina Medical Society, with Dr. S. W. Stevenson, of Mooresville, as alternate.

Dr. T. E. Anderson, of Statesville, and Dr. E. C. Register, of Charlotte, members of the State Board of Health, who were recently appointed a committee to inspect the sanitary condition of all the State institutions at Raleigh, spent several days during the first part of October in the performance of these duties.

Marriages.

Dr. J. W. Wilson—On Thursday afternoon, October 1, occurred the marriage of Dr. John Wesley Wilson of Orrville, Ala., to Miss Helen Meredith of Eutaw, at the Methodist church in Eutaw, Ala. The groom is a rising young physician of Orrville and the bride is a daughter of Mr. E. C. Meredith of Eutaw.

Dr. T. Callahan Davison and Mrs. Laura Rutledge, both of Atlanta, were united in matrimony, Aug. 31, at the Baptist Tabernacle of that city.

Dr. Davison graduated in 1906, from the Atlanta College of Physicians and Surgeons and since that time has succeeded in building up quite a fine practice in Atlanta.

Dr. Francis Brooke Longan of Newport News, Va., was married Sept. 9th, to Miss Ellen Clayton Walton of the same city.

Dr. Longan, is a native of Louisa county, Va. Since his graduation at the Medical College of Virginia, in Richmond, two years ago, he has lived in Newport News, where he and his bride are at their home since their return from their visit to northern cities and Niagara.

Dr. Julius B. Cooper and Miss Alice Maud Adams were married, Sept. 2, at the home of the bride's parents in Birmingham, Ala. Dr. Cooper is a rising young physician of Birmingham.

Dr. C. B. Hodgeboom and Miss Beatrice Wortham, both of Decatur, Ga., were married in Pulaski, Tenn., September 7. Dr. Hodgeboom is one of the best known and most prominent young men of North Alabama.

Deaths.

Dr. William F. Noel died at his residence in Richmond, Va., Sept. 14, aged seventy-three years.

Dr. R. B. Shackelford, one of the most prominent physicians of his section of Virginia, died Sept. 7, at his home near Cismont. He had been in ill health for several years past, but the immediate cause of his death was a stroke of paralysis. He graduated in 1854 from the Department of Medicine of the University of Pennsylvania. Dr. Shackelford was seventy-eight years of age and had resided near Cismont for nearly thirty years.

Dr. Hamilton Moore Weedon died Sept. 10th at his home in Eufaula, Ala. Dr. Weedon was born in Tallahassee, Fla., May 15, 1834. He was graduated as a

physician at Albany Medical College, N. Y., with distinction in 1855, and for a number of years afterwards practiced his profession at Key West, Fla.

At the outbreak of the war he joined the 4th Florida regiment, of which he was soon made surgeon, and afterwards promoted to division surgeon of Bates division.

Near the close of the war he was stationed in Eufaula for hospital duty but was again called to the front and was finally discharged at Macon, Ga., with General Johnson's army in 1865.

Returning to Eufaula, he married, in 1866, Miss Mary E. Young of that city.

In every avocation of his long and useful life he was successful, always ranking among the most prominent in his chosen profession as a surgeon and physician, and a business man whose diligence and strict integrity earned for him a reputation in the commercial world.

Dr. William Greer Armstrong, a member of the State Board of Health and one of the ablest young physicians of New Orleans died at his home at Milan and Camp streets Sept. 2nd, after an illness of ten days. An acute attack of pneumonia caused his death.

Dr. Armstrong was a native of New Orleans, and was thirty-nine years of age. After receiving his earlier education in the public schools, Dr. Armstrong entered Tulane University and graduated from both the academic and medical departments with high honors. On account of his high class standing he was detailed for graduate work in the Charity Hospital. Graduating in 1891 with distinction, he successfully stood a competitive examination which made him assistant house surgeon at the Touro Infirmary, where he remained two years.

When he left this institution Dr. Armstrong entered private practice and met with much success. His ability as a physician and a character and personality placed him high in the love and esteem of his patients, and for years he served them well and faithfully.

Dr. George W. Landis died in Durham, N. C., Sept. 22, after an illness covering the greater part of ten years. He was 67 years old. Dr. Landis removed from Oxford to Durham about nine years ago. He was one of the best known physicians in the counties of Granville, Warren, Durham and Vance. His practice in Durham was brief because of his loss of health.

Dr. Jno. S. Apperson, a prominent physician of Marion, Va., died suddenly at his home in that town, August 9. Dr. Apperson was in his seventy-first year; he was a

graduate of the Medical Department of the University of Virginia, class 1867, and during his long life had been an influential citizen of Marion, a genial, kindly gentleman, and a successful doctor. He leaves a wife and ten children who, with his wide circle of friends, mourn his death.

Dr. David Devere, at one time a practicing physician at Morristown, Tenn., after attempting to kill his wife on the streets Sept. 11, walked to a stable nearby and shot himself through the brain, death resulting instantly. Dr. Devere, who was an old man, and his wife had been parted for a year or more.

Dr. H. Howard Sayers, of North Fork, W. Va., was shot and killed Sept. 3rd by W. Wesley Wilkes, on a train at Keystone station, W. Va. There had been bad blood between the two men for some time, and it is said the physician had threatened to kill Wilkes on sight. When they met at Keystone depot Sayers attacked Wilkes and the shooting followed.

Dr. Richard J. Thurmond, one of the most prominent citizens of Sheffield, Ala., and one of the best known men in Colbert county, died at his home in that city, Sept. 24, after an illness of several weeks from gastritis.

Dr. Thomas Turner, a widely known citizen of Frederick, Va., died Sept 6, after more than a year's illness with pulmonary trouble.

Dr. Turner was a native of Georgetown, D. C., but he had lived in Frederick since 1840. In 1850 he was graduated in medicine from the University of Virginia and practiced medicine until the breaking out of the Civil War, when he enlisted in the Confederate army, and was surgeon in charge for a time of hospitals in Stonewall Jackson's corps.

Dr. J. F. Code.—The sudden death of Dr. J. F. Code, of New Orleans, which occurred Sept. 10, was a shock to both the medical fraternity and his large circle of friends. His death was supposed to have been caused by an internal hemorrhage and occurred when he was thought to be in perfect health.

Dr. J. F. Shaffner, Sr., a widely known physician died at his home in Winston-Salem, N. C., Sept. 18, at the age of seventy years. Dr. Shaffner was a graduate of the Jefferson Medical College, class 1860. He joined the Confederate Army early in the struggle and served with distinction throughout the four years' strife.

He enlisted as a volunteer in the Twenty-first Regiment, of which Alfred Belo was captain. He was then made assistant surgeon of the Seventh, Twenty-first and Thirty-third Regiments, and later was appointed field surgeon of the Thirty-third and Fourth Regiments. He was finally made brigade surgeon of Branch's and Ramseur's Brigades, and served in this capacity until the surrender.

Dr. W. H. McKinnon, of Red Springs, died at St. Luke's Hospital in Fayetteville, N. C., Sept. 29, from Bright's disease. Dr. McKinnon was very well known and was a physician of marked ability. He was born in Fayetteville in 1843, graduated in 1870 from the Bellevue Hospital Medical College, New York City, and practiced medicine in Fayetteville, Hope Mills, and Red Springs.

Dr. Edward H. Johnson, of Troy, Ala., died August 27th, from injuries caused by a railway accident. He had started to visit a patient on foot and reached the crossing just as the fast Coast Line train from Montgomery was approaching. In some way he stumbled and fell on the track, and before he could get up the engine caught his foot, crushing it and throwing him against the end of the crossties. The train carried him back to the station, where medical aid had been summoned. He was found to be in a very critical condition and was immediately carried to his home, where everything possible was done for his relief, but he succumbed to his injuries about an hour later.

Dr. Johnson was a very genial gentleman and highly respected citizen of Troy, where he had lived the greater part of his life, having been born in that town on July 27, 1845. After his graduation from Washington University School of Medicine, Baltimore, Md., in 1869 he went to Rutledge, Ala., where he practiced for several years, but in 1888 he returned to Troy.

Dr. J. Edward Caldwell, of Caldwell's, Mecklenburg county, N. C., died Oct. 8, at his home after a short illness. His death was due to a congestive chill. Dr. Caldwell was a graduate of the Medical Department of New York University, class 1869. Up to the time of his death he was actively engaged in the practice of his profession.

Dr. Chas. F. Marsh, superintendent of the Gainesville (Fla.) Haven Sanatorium suddenly expired Sept. 17, as he was giving instructions to one of the nurses. His death was entirely unexpected and all the more shocking since Dr. Marsh appeared to be in excellent health up to the moment of his demise, when he suddenly toppled over and passed away without a struggle.

Dr. Marsh had recently taken charge of the Gainesville Haven Sanatorium, which he proposed to make a national institution for the care and treatment of invalid Odd Fellows from every section of the country. He was in his 67th year, and a man of unusual energy and activity for one of his age. Dr. Marsh graduated in 1869 from the Medical Department of the University of Michigan. Until recently he had practiced in Pensacola, Fla. He is survived by a wife, one daughter, and one son.

Review of Southern Medical Literature

Alabama Medical Journal, August, 1908.

Auto-intoxication.—Dr. W. D. Partlow believes that medicines such as intestinal antiseptics are of little or no value. Only such drugs as may stimulate secretions and excretions do good. The kind of remedies and the one to be relied upon more than all others for auto-intoxication is water. Among the recent insane, the one most active and prolific exciting cause, operating of course in those cases inherently predisposed, is auto-intoxication. Especially is this true of acute manias, acute melancholias and precocious dementes. The treatment thereof is of course to remove the cause by cathartics, followed by gastro-intestinal tonics to stimulate secretions along the alimentary tract and in the adjacent accessory glands. The most clearly indicated, however, is the hydrotherapy—large quantities of water internally—by the mouth if the patient will take it, and if she refuses then water is to be given through the stomach tube, and by normal saline solution by hyperdermoclysis or intravenous injection. By getting large quantities of fluids into the circulation the auto-toxines are diluted and rendered less noxious, the secretions and excretions are stimulated, the accumulated poisons begin to drift toward an exit and the entire body is flushed, as it were, wherever blood and lymph goes. High enemata of normal saline solution or boric acid solution given daily through a colon tube is often of much value, especially in those cases who take an insufficient quantity of fluids by the mouth. Of the cases of mental troubles which one may hope to benefit by treatment, a very

large percentage comes within the class of auto-toxemia as the exciting cause.

The American Practitioner and News, Aug., 1908.

The Value of Urine in Diagnosis.—Dr. E. S. Allen says that the excretion of the urine is dependent on both a mechanical and chemical basis, one of filtration and the other of diffusion as a result of a chemical selective action manifested by the cells lining the proximal uriniferous tubules.

The amount of urine excreted then is absolutely dependent on the intra-arterial tension, and this is on the strength of the heart or to stimulation of the vasomotor constrictors, which might be due to a selective action of some drug on the center of the vasomotor constrictors in the medulla or to a possible local selective action on the vasoconstrictors in the kidney alone. The author believes that the physiologist and chemist are going to have to study more in detail the chemical make up and molecular arrangement of cells performing different functions in order to know just how certain drugs have peculiar selective action.

The West Virginia Medical Journal, Aug., 1908.

Ophthalmic Reaction in Tuberculosis.

—Dr. W. L. Weadon believes that the advantages of the ophthalmic over other methods of using tuberculin for diagnostic purposes are: It produces no constitutional disturbances; it is as accurate and delicate as the hypodermic injection; with few exceptions it is absolutely safe; and it enables us to make correct diagnoses in infants and children where physical signs are often difficult to elicit. After further experience, should this test prove reliable, it can be readily seen what it will mean to humanity in general, for the successful treatment of all forms of tuberculosis depends upon an early diagnosis, which is often difficult and many times impossible to make from physical signs alone.

The author concludes his paper as follows:

1. The ophthalmic test is of undoubted value in the diagnosis of tuberculosis.
2. It is so easily applied that its use will become general.
3. The reaction is most active in children, and a weaker solution might be tried.
4. It may prove of advantage as a prognostic agent.

Texas State Medical Journal, August, 1908.

Acidosis.—Dr. H. K. Beall says that the symptoms of acidosis are quite characteristic, though extremely variable in their indi-

vidual severity. Although any features may be absent in any case, the symptom-complex of acidosis may be stated thus: headache, vomiting, a peculiar dyspnea, marked prostration, constipation, tachycardia, an acetone odor to the breath, and in the serious cases coma and death. Except in the course of diabetes, vomiting is probably the most constant symptom. The vomiting is usually severe, persistent and may continue in spite of everything unless the acidosis is combatted. This is usually the prominent feature of acidosis which follows anesthesia and operation. There is usually constipation, oftentimes extreme, and this is usually well marked in the acidosis of children and in diabetes. The dyspnea is peculiar, interesting and characteristic. It is the familiar dyspnea at the end of diabetes, and Kussmaul has well termed it "air hunger." With no obstruction of the air passages and free expansion of the chest, no fullness of the veins, no cyanosis, the patient breathes to the utmost with the fullest inspiration and expiration following in quick succession. The acetone odor to the breath is characteristic, and most always gives a clue to the diagnosis, which is confirmed by examining the urine. The headache, tachycardia and delirium may at times be very marked, and the coma differs in no respect from diabetic coma.

part of the general practitioner than is usually given them. When one recalls the fact that 50 per cent. of the ills of childhood are due directly or indirectly to their presence, one ought to look for, and attempt to relieve these conditions, which, when carefully and thoroughly done, result in good only equalled by some of the so-called major operations. Remember that immediate pathological changes are taking place in the tissues which result in a chain of innumerable and oftentimes serious lesions, most prominent among them are retarded development (with all of its accomplishments, every organ performing its functions imperfectly), the child's resisting powers greatly lessened and made more susceptible to all the infectious diseases, with all their dangers, the hearing greatly endangered, and thereby the development of speech. Of the more remote effect, the very first one to always be remembered, is the great danger of increased susceptibility to pulmonary tuberculosis, due to imperfect lung development,—in other words, letting the child for want of sufficient air grow to adult life a weak and delicate individual, the possibility of deaf mutism, of the various neuroses of naso-pharyngeal catarrh (with its unpleasant symptoms), of the greater tendency to acute rhinitis, pharyngitis, laryngitis, bronchitis, pneumonia, and many others which could indefinitely be enumerated. These conditions alone are sufficient to demand a closer observance for their recognition.

The Medical Recorder, August, 1908.

Puerperal Eclampsia.—Dr. T. E. Williams says that our knowledge of the causes of eclampsia is still in its theoretical stage, and for this reason he mentions some of these theories as bearing upon the case he reports. The idea that it is caused by urea in blood is probably the oldest and best established, and it is possibly the most generally accepted of causes today; though there is abundance of proof that there are at least other causes. By some, the thyroid gland has been held responsible, others have thought abnormal action of syncytial cells are at times the cause. Some have it microbic infection, and again carbonate of ammonia is supposed to cause it. Of this one feels sure, that there is some poisonous substance or substances retained in the system which should be thrown off. These are probably retained because of the deficient action of the kidneys. These toxins circulating in the blood produce an irritation of overwrought motor nerve centers, thereby producing the convulsion.

The Southern Clinic, August, 1908.

Neglected Common Throat Trouble.—Dr. L. A. Bize believes that adenoids in children deserve more consideration on the

Atlanta Journal-Record of Medicine, Aug., 1908.

The Examination of the Feces as an Aid to Diagnosis.—Dr. J. N. LeCoute says that clinically, one of the most important pathological findings in the stool is mucus, which when present always indicates an inflammatory process of the intestines, though inflammation may be present without mucus being demonstrable. The mucus visible in the feces is almost invariably from the colon, and the smaller the particles and the more thoroughly mixed with the feces, the higher its origin. The author has often seen abundant mucus revealed in the black plate after grinding up, when it had not been visible on inspection. In these cases the mucus was probably freshly formed high up in the colon, and became incorporated in the feces while the latter was still in a liquid state.

Mucus which is formed in the small intestine is generally digested before it reaches the rectum, and may only be assumed to be present in the feces in cases of, (1) liquid feces, with, (2) rapid peristalsis, where, (3) very small mucus particles show microscopically many bacteria and half digested

cells, (4) if the sublimate test is positive, and if, (5) much muscle and potato is visible to the naked eye.

The Use and Abuse of Drugs in Tuberculosis.—Dr. W. M. Jones under the section on Hemorrhage says that the drug most often used, and one that some of the recent text-books recommend is ergot. Ergot is of value in hemorrhage of any organ with the exception of the lungs, here it is as surely contraindicated, and more so than that of any drug. The reason is that ergot is a stimulant to the vaso-motor centre, causing a contraction of the small arteries and arterioles, and by this action lessening the escape of blood, but at the same time causing an increase in arterial tension and raising the blood pressure. The lungs being separate and distinct in their minute histological anatomy, as to circulation, accounts for the contraindication in the administration of ergot. The terminal branches of the pulmonary artery do not anastomose as do the terminal branches of other arteries, and the walls of the pulmonary vessels are much thinner and consequently weaker than others, and as a natural sequence whenever the blood pressure of the entire anatomy is raised, these weaker vessels are the first to give way and rupture under the increase, and the condition is thereby aggravated. Rest combined with small doses of atropine will generally stop the flow in a short time.

Also antipyretics have no place in the treatment of tuberculosis, as they only mask a symptom and do not affect a cause, with consequent depression of the heart and that of the general system. Rest absolute of mind and body will bring about all the reduction that is necessary, and in the event that it does not reduce it, antipyretics are not called for.

Virginia Medical Semi-Monthly, Aug 5th, 1908.

Pernicious Anæmia.—Dr. W. S. Gordon says that after reviewing the various opinions expressed as to the essential nature of pernicious anæmia, and bearing in mind the remedial measures which at the present time appear to be most trustworthy, we are hardly justified in believing that the disease has its origin in the blood-making structures. The benefit, usually temporary, derived from arsenic, seems to be due to its power of influencing blood formation and general nutrition. The same may be said of the remarkable effects which the drug produces in many cases of splenic anæmia. It probably acts as a direct hæmogenic stimulant, but it is not a specific, nor a germicide, nor does it appear to reach the

underlying first cause of pernicious anæmia. It would appear that the blood itself is affected before the bone-marrow. If this be true, there are morbid agencies in the blood, and at least some of these toxins have their origin in the digestive tract. We can reasonably hold to this view until physiology and pathology have added to our knowledge.

Tetanus.—Dr. J. H. Underwood believes that from bacteriological tests the most reliable germicide in tetanus seems to be a solution of bichloride of mercury, 1 to 1,000, with one-half per cent. hydrochloric acid added, or strong solution of iodine, which has the advantage of extreme penetration. Continuous bathing with one and one-half per cent. carbolic acid solution is useful, but pure carbolic acid should never be used, as it coagulates the albumen of the tissues, thus sealing up any bacilli that may be present, and forming just what we do not want, namely, an anaerobic field. The result of treatment is directly proportionate to the lapse of time between the first implantation of the germ and the institution of treatment.

Fully as important as the thorough disinfection of the wound is, the administration of antitoxin, for there is no better example of the frequently quoted axiom, "An ounce of prevention is worth a pound of cure." All patients with suspicious wounds should at once receive an injection of 10 c.c. of an antitetanic serum.

McFarland has shown experimentally that antitoxin in the form of dry powder sprinkled over an abraded surface in animals, then rubbed with pure cultures of tetanus is preventive in almost every case.

Principles of Surgery.—By Dr. Stuart McGuire.—Anæsthesia and Anæsthetics,—General and Local Anæsthesia; Various Drugs Employed, with Their Therapeutic Action, Indications for Use, Methods of Administration.

The Louisville Monthly Journal of Medicine and Surgery, August, 1908.

Method of Drainage of Ankle Joints.—Dr. O. H. Reynolds describes the procedure as follows: The method to be used in establishing this condition varies naturally with the character of the original injury. The astragalus itself is most accessible through an incision over its head, parallel to and to the outer side of the extensor tendons made with the foot strongly adducted. Through this the neck is seized with heavy forceps and drawn upon while the attached ligaments are divided, and the bone freed and removed. Counter openings can now be made behind on either side of the tendo

Achilles, and drainage tubes placed in them. After thoroughly cleansing the joint cavity and taking care of the bone injury, the space is packed with gauze through the anterior opening and the latter kept open by the end of the gauze packing. The foot is then brought into proper position and enveloped along with the leg in a bulky dressing and placed in a gutter splint. The first dressing is made about the fourth or fifth day, not sooner, unless special reasons develop; and subsequent dressings at intervals of about three days. The final results show an ankle in which there is slight motion, the foot at right angles to the leg, and the distance from knee to the under surface of heel shortened about $\frac{3}{8}$ to $\frac{1}{2}$ inch.

The Texas Medical News, August, 1908.

Duty of Physician to his Obstetrical Patients.—Dr. O. P. Schaub says that owing to a prevailing custom, the great majority of pregnant women remain indoors too closely, often to the detriment of their health and that of the child. We not only deplore this, but denounce it as a foolish practice and exaggerated modesty.

It behooves men as well as women to look upon this condition of woman as only one of nature's laws, divinely planned, and, by a respectful manner and considerate air, help to keep the dignity of motherhood sacred and pure.

It is our belief that our women in towns and cities could learn a valuable lesson from their country sisters in regard to their manner of living during pregnancy. The latter, that is, the generality of them, do their house work and quite frequently attend to the needs of a large family. This necessitates exercise more or less of the entire body, promotes a development of muscular strength, and suggests a healthy occupation of the mind; consequently, they usually have few complications and bear strong, healthy children; while a lady isolated from her social duties has only to think of her condition, and probably magnify the dangers attendant, until she is a nervous image walking on the edge of nervous prostration awaiting the trying ordeal.

Texas Medical Journal, August, 1908.

Retrodisplacement of the Uterus.—Dr. H. K. Leake says that immediately following the announcement by Gilliam of his method of shortening the round ligaments by drawing loops through perforations in the recti muscles about an inch away from the abdominal incision and securely fastening them on the surface of the aponeurosis, he began to do this operation and has employed it with the greatest satisfaction in

all suitable cases. Its advantages are obvious. The stronger uterine ends of the ligaments, forming one limb of each loop which takes up the slack, are utilized no less than the weaker ends to swing the uterus from a fixed point in the abdominal wall and yet allow sufficient mobility of the organ in the performance of its several functions. The claim that intestine might fall into the vacant space between the fundus and the abdominal wall and become imprisoned has no justification in my experience or in that of others, but such possibility may be anticipated by obliterating this space with a few fine sutures uniting the peritoneum to the fundus when closing the abdominal incision. The union by these sutures will offer little, if any, opposition to the future movements of the uterus. Besides affording some support to the latter until the ligament loops have become united firmly with the separated fibres of the recti muscles and aponeurosis to which the fixation has been made.

New Orleans Medical and Surgical Journal, August, 1908.

Headache of Nasal Origin.—Dr. A. I. Weil believes that diseases of the nose, which give rise to headaches, may be divided into three distinct groups. 1st. Those which cause obstruction to nasal respiration resulting in mouth breathing, especially at night, impaired oxygenation, etc.; to this class belong chiefly turgescence and moderate hypertrophy of the turbinates, especially the inferior and certain polyps, which hang down from the middle meatus and obstruct the air passage. 2nd. Deformities or disease, which cause pressure within the nose, such as hypertrophied middle turbinates, large spurs of the septum and the like; and 3rd. Acute or chronic catarrh or supuration of the nasal mucous membrane of the accessory cavities, for example, acute coryza and acute sinusitis. The pain is to be attributed usually to one of five causes:

(1) Pressure of the hypertrophied or swollen part upon the septum or upon each other, especially the middle turbinate against the septum.

(2) Hyperesthesia of the mucous membrane.

(3) Acute congestion or inflammation of the Schneiderian membrane.

(4) Retention of pus under pressure.

(5) Disturbance of the blood and lymphatic circulation at the base of the skull; this latter applies especially to adenoids and lies outside the scope of the present paper.

The Southern Practitioner, August, 1908.

Appendicitis: Its Treatment.—Dr. C. N. Cowden says in order then to diminish the

mortality of appendicitis the following conclusions are forced upon us:

(1) An early diagnosis. (2) Appendicitis is always a surgical disease. (3) Withhold purgatives and all fluids per mouth to limit peristalsis. (4) Every patient is entitled to and should have an operation within the first 48 hours, without waiting for pus outside of the appendix. (5) Cases of perforation, localized abscess or gangrene should be opened and drained, with removal of the appendix, if it can be done without disturbing the adhesions. If not, drain only. (6) Price, Murphy and others have shown a greater number of recoveries in diffuse peritonitis, when all cavities are opened and drained, without flushing. (7) If the case is subsiding, after the fifth day, the Ochsner method may be employed, awaiting a more favorable time for operation. (8) Operation should be urged in all interval cases. Last: seldom if ever has an operation been regretted in any stage of the disease.

Pernicious Anaemia.—Dr. C. E. Brush believes that of the intestinal parasites, the only one that can produce an anaemia indistinguishable from pernicious anaemia is the *Dibothriocephalus latus* or fish tapeworm. While it has long been known that this parasite may produce in an individual the typical symptoms and blood picture of pernicious anaemia, it was not until Talquist's researches were published, about a year ago, that we had any clear conception of how the condition was produced. In the proglottides of this tapeworm he discovered a liquid substance which possessed powerful hemolytic properties. Experimentally he produced in animals the typical blood picture and tissue changes of pernicious anaemia by injection of this lipid substance. He also showed that from the intestinal mucosa of man there could be formed a lipid substance similar to that obtained by the disintegration of the mature segments of the fish tapeworm, and he suggests that in cases of pernicious anaemia there are alterations of the intestinal mucosa which lead to the liberation of this hemolytic substance.

Virginia Medical Semi-Monthly, August 21, 1908.

An Opinion as to the Ultimate Results Obtained from Surgical in Comparison with Medical Treatment in Certain Ovarian Diseases and in all Ovarian Neurosis.—Dr. J. A. Hodges summarizes his paper as follows:

First. Too little time and skill are usually expended by both physicians and surgeons in the proper diagnosis of these cases.

Second. The proper diagnosis requires a critical consideration, not only of the special features of each case and the particular pathological conditions present, but also of the individual temperament of the patient in question.

Third. The systemic condition of the patient must be the physician's first consideration, for the simple correction or removal of a single pelvic abnormality does not often effect a cure.

Fourth. Meddlesome pelvic interference, consequently, by both physicians and surgeons in the treatment of these cases is to be condemned.

Fifth. Certain ovarian diseases, as mentioned, and most ovarian neuroses do not usually require operative measures, better results being obtained by proper and continuous lines of medical treatment.

Sixth. Surgical measures are often undertaken hastily, and without sufficient constitutional preparation of the patient for the operation.

Seventh. Frequently these operations are too radical, and are performed before medical measures have been given a full and fair trial, and are graver than usually considered, for the resort to surgery robs the patient of the last hope of health, and, if successful, induces a train of symptoms more serious than the original condition.

Eighth. If a surgical operation is decided upon, the non-reference of the case back to the family physician for final cure is frequently a mistake, for, otherwise only an anatomical cure is effected, and not a physical and psychic one.

Ninth. To obtain the best and most permanent results, it is necessary that the family physician, who first sees these cases, should use all available means for their cure and for the prevention of threatening complications; and that if these do arise and surgical methods are indicated, there should be harmonious co-operation between the referring and attending consultants, both in the proposed treatment and subsequent management of them.

Gaillard's Southern Medicine, August, 1908.

The Nature and Treatment of Fever.—

Dr. W. S. Gordon says that we must bear in mind the liability of certain children to convulsions when the temperature rises to certain point; the wakefulness or stupors which frequently assume the gravest phases; the possibility of fatty degenerations that jeopardize the patient's life, and the many discomforts entailed upon the sufferer; nor should it be forgotten that elevation of temperature maintained even for a short period above a given point means death. It is

well that knowledge comes, even if wisdom lingers, as Tennyson says, and it is better for us and for those whom we attend that we understand the dangers of fever, and no longer withhold the simplest and most available antipyretics which the well-meaning but unenlightened practitioners of the past denied.

Although moderate and even high fever, when transient, may at times be disregarded without injury to the patient, yet it behooves the physician to use every reasonable means to control excessive or long continued pyrexia. The appropriate treatment of fever and its accompaniments bring into play the highest resources of therapeutic knowledge and skill, and the doctor who possesses these qualifications illustrates the best type of the medical practitioner. Fever in itself must be treated whether its cause be known or not, and the adaptation, in individual cases, of the means to the end requires an application not only of technical knowledge, but also of practical and common sense methods without which the physician labors in vain.

The American Practitioner and News, Aug., 1908.

The Treatment of Pneumonia.—Dr. A. E. Gardner believes that the evidences of cardiac failure is an indication of one of the most critical periods of the disease. A systolic weakness and a failure of arterial tonicity should be promptly combated with cardiac stimulants. The best of these are alcohol, strychnine and digitalis. Alcohol in some form is the remedy above all others as a stimulant in pneumonia. Perhaps this can only be said of alcohol in so far as it stimulates the cardiac muscles directly. Three or four ounces of good whiskey should be given to an adult in twenty-four hours, and in some instances two or three times this amount may be given with advantage. The old and debilitated and alcoholics require the greatest amount of stimulants. Strychnine stimulates by its peculiar action upon the vaso-motor centers, and for this reason is a valuable remedy in some cases where alcohol would fail. Strychnine is not followed by secondary depression such as we sometimes see after the use of alcohol. Strychnine should be given hypodermically in ascending doses from 1-60 to 1-20 grain, careful watch being kept for untoward symptoms. Digitalis may be given where there is evidence of weakness of the right ventricle or compensatory hypertrophy of the heart muscles. The tincture is the best preparation and should be given in from 10 to 15 minims according to indications.

New Orleans Medical and Surgical Journal, August, 1908.

A Plea for the Earlier Recognition and Treatment of Intestinal Obstruction with Report of Case.—Dr. E. Williams after reporting the case thus concludes his paper:

The marked advance in the surgery of the abdomen as a life saver is due, to be sure, to constant progress towards perfection in the mechanical art of surgery; but it can not be contended otherwise than that the astounding decrease in the death rates of all of the most violent of intra-abdominal diseases and accidents is due in the main to the broadening of the field within which indicative symptoms and signs are searched for, with less tendency to expect and search for classical symptoms and signs in any. As we no longer await the formation of abscess or the supervention of intense icterus with classical biliary colic in gall stone disease; nor of hematemesis or perforation in gastric ulcer; so should it be our aim to make our diagnosis *without* those signs and symptoms which make that diagnosis beyond cavil. It is only by watching the, perhaps seemingly, insignificant details, that the best results may in the end be obtained; and I submit in very brief conclusion that any case in which abdominal pain resists the mildest opiate, and in which vomiting and constipation exist after from six to ten hours of mild, though conscientious, effort at relief, should be subjected to surgical intervention. A small percentage of these operations will undoubtedly prove to be but exploratory, but the opening of the abdomen, in good hands and under proper surroundings, carries with it no danger; and many lives will be saved thereby which, by a conscientious procrastination, will be lost.

Maryland Medical Journal, August, 1908.

Epithelial Tumors of the Skin and Exposed Mucus Membranes.—Dr. A. McClannan believes that little has been added to our knowledge of the etiology of tumors. The recent work has indicated some specific stimulant of cellular proliferation. The nature of this material is as yet unknown.

Cancers of the skin vary widely in their relative malignancy, according to the character of the predominant cell. The different types may be diagnosed clinically or at exploratory incision.

The X-ray, Pinsen light, etc., are of value only in basal cell tumors, and their use here is to be carefully guarded, and is only justifiable when excision would cause great mutilation.

Cancer of the skin, as elsewhere, is primarily a local condition. Treated in this

stage, the disease is always curable by surgical operation. The extent of the operation depends on the variety of the tumor and on its duration.

Surgery, therefore, is the only method of treatment at our disposal. Specific sera, inoculations, caustics, etc., have all failed, and, by postponing operative measures, make the necessary intervention more extensive, at the same time reducing the chances for complete cure.

Book Notices.

Anatomy, Descriptive and Surgical. By Henry Gray, F.R.S., late lecturer on Anatomy, at St. George's Hospital, London. New American edition, enlarged and thoroughly revised, by J. Chalmers Da Costa, M.D., Professor of Surgery and Clinical Surgery, and Edward Anthony Spitzka, M.D., Professor of Anatomy, in the Jefferson Medical College of Philadelphia. Imperial octavo, 1625 pages, with 1149 large and elaborate engravings. Price, with illustrations in colors, cloth, \$6.00, net; leather, \$7.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

Perhaps no department of medicine is, in a literary sense, more richly supplied than Anatomy. As the student must begin with it and the practitioner must continue with it till the end, the demand is large, and nothing less could justify the great expense of creating a major work, with its requirement of immense illustration. Henry Gray, fifty years ago, evinced the boldness of his genius in producing an original work so novel and so far in advance in matter and method, both in text and engravings, that it leaped to the front and established itself as an institution, a unique position for a book. Generally it is easy to improve on a model, but "Gray" has proved the exception. It is the quality of genius to defy analysis and imitation. Gray manifested his genius both in a text of inimitable didactic power and in a series of equally masterly illustrations. His invention of placing the names of the parts directly on them was in itself a great one, and at once removed the former difficulties of toilsomely looking for them at the ends of lines, or, what is worse, finding merely reference letters explained somewhere else. It costs vastly more to cut the names on the body of an engraving, but it is worth while for the reader's sake, especially if he has to pay no more for the advantage. That the concentration of demand would justify this was Henry Gray's bold forecast, and he was right. It brought about another advantage scarcely less im-

portant, namely, the possibility of frequent editions, a necessity in so progressive a subject. Here again the barrier of expense can only be crossed by a work able to subdivide it by unexampled sales. "Gray" proves all these qualifications at once by coming to seventeen editions in its first fifty years, and it now enters upon its second half-century stronger and better than ever. This new edition is the best of all the line. It has been thoroughly revised, every page bearing alteration and improvement, and the whole section on the Nerve System has been rewritten in conformity with recent revolutionary changes in methods of approaching and viewing it. Prof. Spitzka, who has done this section, has made the subject a special field of study, and to the qualifications of an anatomist of the first rank he adds the skill of an artist as well, so that his own hand conveys his knowledge directly to the eye of his reader. Professor Da Costa is both an anatomist and surgeon, and the editorial combination therefore unites what is required for the revision of a work on this subject. The use of colors is another valuable aid initiated by "Gray," and it is developed even further than before in this new edition.

The foregoing statement explains the reason for an observed fact, namely, that "Gray" reduces to a minimum the labors of student and teacher, or, in other words, increases their efficiency to a maximum. This has been impartially tested by numbers of teachers independently, who, after using other works and finding more difficulty during sessions and less success in preparing men for college and State license examinations, have concluded that the consensus of opinion is right in placing "Gray" where it is—at the forefront.

Diagnostic Urinalysis. By Dr. M. D. Hoge, Jr., Professor Clinical Diagnosis and Urinary Analysis, University College of Medicine, Richmond, Va. Presses of The Dietz Printing Company, Richmond. Price by mail, \$1.50.

We are especially pleased to know that Dr. Hoge has seen fit to issue in book form the valuable notes on Urinalysis, which have previously appeared in the *Virginia Medical Semi-Monthly*, as a series of articles the value of which have been easily apparent to readers of that periodical. A number of manuals, guides, and hand-books have been published dealing with this highly important subject; but, so far, we have seen none which present so many valuable features as this one includes in fewer than one hundred pages. Clear and concise in expression, systematically arranged, it gives the student a guide which will greatly facili-

tate the study and laboratory work in urinalogy; and will elucidate for the practitioner the various and perplexing questions which are presented in his daily work and will help him to decide what is really the condition of the urine, so that effective remedial measures may be applied. After a short historical note, the author has given a very concise discussion of the anatomy, physiology and pathology of the kidney itself. In the methods of examination of the urine he has omitted complicated tests and ultimate analysis, selecting only those which are practical and essential to proper and accurate work. In addition, the various conditions in which abnormal products are found in the urine are enumerated under each heading, and this greatly enhances the clinical value of Dr. Hoge's work.

His long experience as a pathologist, and his very considerable clinical experience as well, make this volume one upon which the doctor and student can rely. It is destined to a field of great usefulness.

A Text-book of Physiology. For Students and Practitioners. By George V. N. Dearborn, A. M., (Harvard) Ph.D., M. D. (Columbia), Professor of Physiology in Tufts College, Medical and Dental Schools, Boston. Octavo, 550 pages, with 300 engravings and 8 colored plates. Cloth, \$3.75 net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

Professor Dearborn's new work enters its field, already rich in literature, well equipped to achieve a position in the forefront. It is easier to write verbosely than concisely, to state many things rather than to determine what is really important. Our author conceives it to be the duty of a book to guide and instruct a reader presumably unacquainted with its subject beforehand. Instead of turning him loose in a mass of more or less arranged facts, a true text-book should present its principles and data in orderly, logical form, and should also indicate their mutual relations and bearings, so that the student mastering it may have a clear view of the whole subject. Dr. Dearborn obviously possesses both the requisite physiological knowledge and didactic ability, and his work, manifesting and combining these qualities, is certain to be appreciated by teachers as an excellent text-book for their students, and therefore as a first-class aid in the performance of their own duties.

Pathogenic Micro-organism, including Bacteria and Protozoa. A Practical Manual for Students, Physicians and Health Officers. By William H. Park, M. D., Pro-

fessor of Bacteriology and Hygiene in the University and Bellevue Hospital Medical College, New York. New (third) edition, thoroughly revised and much enlarged. Octavo, 648 pages, with 176 illustrations and 5 full page plates. Cloth, \$3.75 net. Lea & Febiger, Philadelphia and New York, 1908.

Dr. Park was the first to give concrete recognition in book-form to the fact that diseases caused by animal organisms are almost as important to the human race as those resulting from low forms of vegetable life. It is true that the pathogenic bacteria, representing the vegetable kingdom, are more numerous than the disease-bearing protozoa, or animalcules, and it is also true that the latter are more difficult to cultivate and demonstrate, but no reason can justify ignoring them. Professor Park, perceiving this deficiency supplied it in the most effective manner by preparing chapters on the protozoa and placing them with others on bacteria in a single volume, where they could be studied together, both in similarity and contrast. His work was thus the first to cover all diseases caused by micro-organisms. The need for it and the acceptable way it supplies that need may be seen in the demand for three editions. In a subject of such intense activity, growth is very great, and accordingly the changes in this new edition are extremely thorough-going. Like its predecessors, it is intended to answer the needs of the student and physicians to cover the whole subject of pathogenic micro-organisms from both standpoints.

Making it Unanimous.

A college professor had been invited to deliver his lecture on "Highways and Byways of Literature" at a little town in Indiana—the State that produced George Ade and James Whitcomb Riley among other favorites.

The eventful evening came; and as the lecturer gazed upon the row upon row of earnest, eager faces before him breathlessly waiting for his message, a happy thought struck him, and, stepping to the front of the platform, he said:

"As this is to be purely a literary lecture it seems fitting that practitioners of the glorious art of writing, if any are present, should receive due recognition and honor, and before I begin my discourse I wish to extend a cordial invitation to any author who may happen to be in the house to please come forward and take a seat on the platform with the chairman."

In the frantic rush that ensued the three front rows of seats were upset and demolished, four women fainted and had to be

carried out, a half dozen derby hats were crushed to pulp, three men received black eyes, several others had their coats ripped up the back, and the reading-stand was toppled over with a crash. When the dust had settled down so that it was possible to see across the hall once more one man alone remained seated in the auditorium. The rest were on the stage.

The astonished lecturer gazed for a moment at the deserted man in front of him, and then, the humorous side of the affair appealing to him, he smiled indulgently down upon the solitary occupant of the auditorium and said:

"I forgot that this was Indiana. Perhaps you did not understand my invitation."

"Hey? What's that?" demanded the man, holding a trumpet to his ear and leaning forward with a look of strained inquiry on his face.

"I say, perhaps you did not understand the invitation," repeated the lecturer, "This being a discourse on literature, any author who chanced to be present was requested to come forward and take a seat on the platform with the chairman."

"Oh, all right; I'm coming! Didn't hear you the first time," apologized the deaf man, and he, too, rose to his feet and started briskly for the platform,—October Lippincott s.

Abstracts of the Leading articles of the month.

Sterilization of the Hands—Stoney, according to the London Practitioner, carried on some experiments in sterilization of the hands in order to determine if it is necessary to wear gloves in doing aseptic operations. The author inoculated four tubes with material obtained from the hands in the various ways at the beginning of the operation just after sterilization of the hands, and four tubes at the close of the operation. One source of material used for inoculation was a fragment of epidermis snipped off the finger, another flakes scraped from under the nail, and another a knot of silk made by tying sterile silk with the sterilized hands. In all cases the instruments and hands were rinsed in sterile water before the specimen was taken to remove any excess of antiseptic.

The method of sterilizing the hands is as follows; (1) Scrub with sterilized nail-brush in water as hot as can be borne with carbolie soap for five minutes, several changes of water being used; (2) rub thoroughly with sterile gauze wet with methyl-

ated spirit; (3) immerse for one minute in a watery solution of biniodide of mercury 1 to 500. Better results were obtained later on by substituting for steps 2 and 3 in the above process of sterilization soaking for three minutes in

Commercial alcohol (90-per-cent), 26 ounces.

Hydrochloric acid (commercial) 2½ ounces.

Water, 11 ounces.

Corrosive sublimate, 16 grains.

This fluid was not found to be harmful to the hands. In a few cases in the first series of experiments the staphylococcus albus or aureus developed, and in the second series a sporing bacillus. The experiments show that it is possible to render the hands sterile, or at least free from pathogenic bacteria, by a simple and short method. The wearing of gloves, therefore, during the performance of an aseptic operation is not necessary, though it is advisable in the case of those operators whose skin is either unusually difficult to sterilize or easily injured by the constant use of antiseptics.

Acute Dilatation of the Stomach—Neck (Centralblatt fuer die Grenzgebiete der Medizin u. Chirurgie) gives an exhaustive review of the literature on acute dilatation of the stomach, a condition which he describes as a sudden distention and disturbance of the functional energy of the stomach, with stormy symptoms, arising in a case in which no marked disturbance previously existed. The subject matter is a careful review of the results of autopsies, experiments and clinical observations, presenting some fifty literature references.

Cholecystitis Typhosa—Doerr (Wiener Klinische Wochenschrift) conducted an interesting series of experiments on animals with reference to the disposition of typhoid and other bacilli in the bile. The experiments were prompted by the observation of a case of empyema of the gall bladder on the basis of an old cholelithiasis. The patient had had typhoid fever, and the pus as the nuclei of the numerous gall-stones contained typhoid bacilli in pure culture.

Phagocytosis and Seroactivity.—Gruber and Putaki (Munchener und Wochenschrift) find that if virulent typhoid bacilli are injected into guinea-pigs they are not attacked by the leucocytes, unless they have previously been acted on by the alexins. The serum reaction varies greatly with other species of bacteria, whether it had previously been sensitized or not. The primary protecting agent is not phagocytosis, but the the thermolabile substances,

the former being secondary. If on the injection of bacteria into the body phagocytosis immediately takes place, the alexins must already be present and the blood bactericidal.

Lactic Acid in Gastric Carcinoma.—Sick (Deutsche Archiv für klin. Med.) investigated thirty-four cases of doubtful carcinoma of the stomach. The writer concludes from his findings in these cases that the Oppler-Boaz bacilli do not flourish in the stomach unless there is more or less of a deficiency of hydrochloric acid. Lack of motor power also favors their growth. The most important factor favoring their growth and the formation of lactic acid is the presence of the soluble albuminoids produced by the autolysis of cancerous growths. The long bacilli are present in the mouths of healthy persons and patients suffering from hypoauidity, but they do not flourish as in cases of ulcerating cancer.

Diagnosis of Flatfoot.—Schumann (München med. Woch.) that frequently flatfoot cannot be diagnosed until the foot is put on the ground and the weight of the body superimposed. In order to record the deformity a piece of writing paper is dipped in liquor ferri diluted one-half, the sole of the foot is painted with a 5-per cent solution of potassium ferrocyanide, and the patient allowed to stand on the prepared paper. The result is a blue imprint of the plantar surface of the foot on a yellow background.

The Relation of Neuritis to Appendicitis.—Marcou (Archiv. gener. de Med.) says that neuritic paralysis of the right ulnar nerve, accompanied by pain and loss of power in the arm, was observed to develop as a sequel to appendicitis in a patient who was not a user of alcohol, and who had suffered no traumatism. He compares this occurrence with the not uncommon neuritic affections of various peripheral nerves, especially the ulnar nerve, in other infectious diseases, notably typhoid fever. The author does not agree with Raymond and Guillaumin, who observed the development of neuritis in the crural and sciatic region with paralysis, though without sensory disturbances, and without involvement of the bladder and rectum, as a sequel to appendicitis. The obturator nerve was likewise affected. The above-named authors did not assume the existence of a polyneuritis upon an infectious and toxic basis, but interpreted the condition as an ascending neuritis.

Hysterical Fever.—Voss (Deut. Zeit. f. Nervenheilkunde) mentions two cases of hysterical fever. The fact that hysteria

was present in both cases is evident from the physical objective signs present. He concludes as follows: 1. When the body temperature rises to hyperthermic it depends upon hysteria. 2. The fever symptoms are primary symptoms and do not depend upon the effects of increased muscular activity. 3. All appearances of vaso-motor diathesis (fever, edema, polyuria, skin affections) can be explained best upon the assumption that they are of cortical origin. 4. The diagnosis of hysterical fever can only be made when there is present no organic lesion which might account for the rise of temperature.

The Use of Red Wine Injections in Infantile Diarrhea.—Houssay in the Archives de Medecine des Enfants, records a number of cases which he has treated with success by the injection into the bowel of red wine in sufficient quantity to act as an enteroclysis. Under these circumstances the alcohol which is present in the wine is absorbed and acts as a stimulant and support to the system, and its tannic acid is an astringent. It is probable, too, that there may be present in the wine certain ethereal substances which are stimulant in their nature.

Scoliosis and Nutrition in Adolescents.—Hutinel (Ann. de Med. et Chir. Infant.) states that scoliosis is not a local malady, but is the result of trouble of nutrition of which traces are to be found in various organs as well as in the spine. It appears most often between the ages of eight and thirteen years, and most frequently in girls. In boys, though less frequent, it is more serious. It appears often to be hereditary. The author regards it as a manifestation of rickets occurring in later life. In these girls the pelvis is large enough and the legs are well developed, but the upper part of the body is narrow and bent. The lower part is that of a woman, the upper that of a child. The arms are thin, the muscles are thin and easily fatigued. There are circulatory troubles; the face reddens and pales, easily, hands and feet are cold and blue and when grasped, damp and disagreeable to the touch. Acne is frequent as are dyspnea and palpitation. Digestion is poor, and colitis and constipation are present. Cyclic albuminuria is present without true kidney lesion, no casts being found. Uric acid is in excess of urea and phosphates are in excess. The liver acts poorly. The nervous system is especially affected. Headache and incapacity for mental or physical work are marked conditions. Hysteria and neurasthenia with anesthesia or hyperesthesia are often seen. Visceral posos are found

with inability to stand and walk without fatigue and pain. Heredity, malassimilation, and insufficient oxygenation all become causes of the condition. Treatment demands rest, economy of the forces, plenty of sleep, and no fatiguing exercises, friction and massage, hydrotherapy and fresh air. Nourishing food and glycerophosphate of lime and arsenic are valuable remedies.

Cholera of Aggravated Type with Certain Unusual Phenomena.—Philip (Brit. Med. Jour.) says slight cases of chorea require comparatively little in the way of treatment beyond release from disturbing influences, whether these be found at home or in school. More or less complete rest in bed, and satisfactory hygienic surroundings along with a simple tonic, such as arsenic, prove readily efficacious. In the course of six to eight weeks the patient is commonly well. Even when the cure is longer delayed in the final result is obtained along simple lines. It is different in graver cases. Here energetic measures require to be adopted, in order to anticipate and remedy the state of exhaustion with which the patient is threatened, and to prevent his injuring himself.

On this account it is desirable to have the patient on a soft mattress, preferably a water bed; all hard structures in his neighborhood must be carefully padded; the head and corners of the bed should be cushioned; the patient's elbows and wrists, knees and ankles should be swathed in cotton wadding. It is not a bad plan to attach a pillow to the inner aspect of one of his legs. Scrupulous care must be taken in relation to feeding. The food should be of a simple, nutritious kind. The writer is much in favor, in such cases, of the systemic exhibition of egg-flip, say every two or three hours. Alcohol, perhaps best of all in the form of brandy in egg-flip, say 2 drachms, is of much service. Hydrorherapeutic measures may prove serviceable. Where the movements are not too violent a warm bath is of service. In other cases the wet pack may be used with benefit. In all cases great care should be taken in the matter of cleanliness, more particularly in relation to scratches or sores of mucous membrane or skin which may be produced through the violence of movement.

Of drugs for this graver type of case, the most serviceable seems to be a combination of bromides and chloral. In one severe case bromides were at first used every three hours with insufficient effect. It was only when chloral was added that a sufficient restraining action on the movements was effected. The bromides were given in doses

of 30 grains every three hours or thereabouts. Chloral was then added, first to the extent of 20 grains, which had little effect, and then twelve hours later in 30-grain dose. Fortunately this succeeded in giving the patient four hours' sleep. On the following night a similar dose afforded seven hours' sleep. During the deep sleep the muscular phenomena disappeared almost completely. On awaking from sleep the patient presented some of the old violence of movement, but he seemed extremely tired. After the second night's sleep he remained profoundly exhausted, and this has continued. The pulse remains rapid and the temperature elevated. This is of grave omen, all the graver that now he has begun to show disinclination for food. When the writer saw him, a few minutes before delivering this lecture, it was hopeless to think of bringing him to the clinical theater. The outlook was most dubious. Fatal collapse seemed imminently threatened.

A Case of Sarcoma of the Maxillary Sinus.—Leonard (Annals of Otology, Rhinology and Laryngology) gives the clinical history of an interesting case of sarcoma. Upon examination the inferior turbinate body was considerably enlarged but was not sensitive to the probe. No bleeding point was seen. In two weeks the inferior turbinate had increased in size but was not sensitive. The patient developed pain on the right side of the face, and antral disease being suspected from a decayed bicuspid he was referred to a dentist for treatment. In a month severe intermittent nocturnal epistaxis occurred, tenderness of the cheek became marked, the maxillary sinus was dark, the right nares being obstructed and the middle turbinate displaced from pressure. After a while it was decided to open the antrum. This being done in the usual way, the cavity was found to be filled with a soft and friable mass, which upon microscopical examination proved to be round celled sarcoma. The operation relieved the pain but did not retard the growth. The right eye became involved, the whole right side of the face bulged, exophthalmos appeared, and the tissues of the cheek began to slough. The patient died despite all treatment. The details of interest in this case are the uninterrupted advance of the disease notwithstanding the best surgical and therapeutic methods, as well as the absence of much pain or hemorrhage.

The Permeability of the Tubes for Fluids.—Buttenberg (Muenchn. Med. Wochenschr.) in a series of experiments, made upon cadavers, studied the conditions under which a fluid injected into the uterus would

pass through the tubes into the peritoneal cavity. The writer arrives at the following conclusions: If a double current catheter is used, the tubes prove permeable only in the minority of cases; if a simple catheter is tied into the cervix, the fluid passes into the peritoneal cavity in more than fifty per cent. of the cases. As a rule, it is only a very small quantity of the fluid that finds its way through the tubes. In experiments with the syringe devised by Braun for intra-uterine applications, he could press some fluid into the tubes almost in every instance in which force was used, but only if he tied the cervix around the canula of the syringe the fluid would penetrate into the peritoneal cavity. If a few drops were injected without undue force, fluid never entered the tubes, and from this the conclusion must be drawn, that Braun's syringe is free from danger if employed cautiously, in accordance with the generally accepted rules for its use.

Diabetic Coma in Children.—Dupuy (La. Clin. Infant) says that prodromal symptoms are very inconstant. The odor of acetone was found in but three of seventeen cases. Ebstein's cylinders were not noticed; diminution in the quality of urine was not pathognomonic. As to the period of invasion, the child often complains of acute epigastric pain, the abdomen is distended, constipation is almost constant, and there is nausea and vomiting of watery fluid. When coma supervenes the general state is already very bad, with great wasting and enfeeblement; the respiration is frequent (the inspiration being full and deep, the chest moving as a whole, remaining thus a few seconds and then falling with an effort in a short expiration). The heart is usually normal throughout. In coma the beats are regular, but progressively feeble (120 to 130 or even 150 to the minute). The polyuria which exists at the beginning becomes markedly diminished; the urine is clear, limpid and acid, containing sugar in abundance, but less than before the coma, during which it diminishes progressively until death. The sugar sometimes disappears completely. Albumin may be found, but in small quantities, and quite late. The smell of acetone is less marked in the urine than in the breath. There is no marked aberration in the nervous system; patellar reflex is often abolished; the laesitude and apathy of the prodromal period becomes accentuated; somnolence is more marked. When the coma is confirmed the pupils are fixed, equal, dilated, or contracted, normal reflexes are abolished; extremities are blue, limbs flaccid, tongue dry, dyspnoea intense, respiration 32-48 per minute, pulse rapid

and filiform. Death takes place without convulsions.

Causes and Treatment of Arteriosclerosis.—Barr (British Medical Journal, January) makes the statement that the most potent disease in the production of arterial degeneration is syphilis. Typhoid fever plays a considerable part, as do acute rheumatism, diphtheria, septicemia, influenza, malaria, etc. He has for some time suspected the toxin of the colon bacillus as being an important factor; examination of the blood of arteriosclerosis shows that in 55 per cent. of the cases it gave complete agglutination with the colon bacillus, as compared with only 20 per cent. with the blood from persons free from arteriosclerosis.

Among mineral poisons, lead must be mentioned. High arterial tension being the precursor of arteriosclerosis, all pressor agents, such as coffee, tea, digitalis, must be looked on as playing a part in the causation of the disease. Although alcohol is credited as one of the most potent factors in arteriosclerosis, it really has but little to do with it, except as it leads to the production of gout. The excessive use of nitrogenous foods kills more adult men than alcohol—the mischief being due to the waste products. The disease is essentially one of late adult life, and differs from senile vascular degeneration; it is much more common in men than in women, they suffering more frequently from syphilis, having more mental worry, and being subjected to more physical strain. Repeated pregnancies often lead to the disease. Long-continued exposure to cold often leads to degenerative changes in the peripheral vessels. American men, as a race, are especially prone to the disease.

The diet is of the greatest importance; it should be of low proteid value, as adults perform their muscular work with carbohydrates. How to eat is as important as what to eat. One should never eat until he has an appetite, then eat slowly, masticate thoroughly, and never eat to repletion. Exercise is of the greatest importance; so long as the exercise is not excessive for the individual, the more one gets out of doors the better. A course of baths often does much good. He seldom prescribes digestive agents or hypnotics; failure to eat or sleep requires treatment, not palliation. The thyroid preparations are extremely useful, and iodine is often even more valuable. The latter is best given as tincture or syrup of iodine. Adrenalin and the chlorides are pressor agents, and should never be given alone. Nitrites are useful in emergencies, but their effects are too evanescent for continued use. The benzoates frequently give excellent results, especially where the kidneys are involved.

The Surgical Treatment of Facial Paralysis.—Furet (*Revue Hebdomadaire de Laryngologie*) says that anastomosis of the facial nerve with other nerves in order to regain lost function following either disease or injury was first practiced by Ballance in Bondon in 1895, who anastomosed the facial with the spinal accessory nerve. The writer was the first to describe the operation, when he performed it in connection with Faure, in 1898. Since then he has done twenty-five more of these anastomoses; in eighteen of his cases the spinal accessory was used and in eight the hypoglossal nerve. In six cases there was no improvement, but in the balance there were satisfactory results, improvement being shown in the increased tonicity of the muscles, resulting in less facial deformity, especially when the muscles were in repose. When they are in activity the asymmetry returns. When the spinal accessory is the nerve which is anastomosed, this occurs also during movements of the arm and shoulder of the corresponding side. Education, however, will, in a measure, serve to overcome this. On this account, Furet advises choosing the hypoglossal in preference. The lingual hemiatrophy which follows is not permanent, nor does it always occur. There is really no more difficulty in doing this operation, and in some cases it is even easier on account of the close proximity of the two nerve centres. We may look for improvement after the fourth month, though occasionally it will be absent until the sixth month.

Radiotherapy in Leukemia.—Decastello and Kienbock (*Fortschr. auf dem Gebiete Röntgenstrahlen*) says that in myeloid leukemia the x-rays are of more value than in the lymphatic variety. In about 90 per cent. of the former cases the effect of the rays is shown by a favorable influence on the course of the disease and a shortening of the cachectic stage. In lymphatic form about 70 per cent. of cases are much improved. The more acute the disease, the less marked and more transitory are the results of treatment. The enlarged spleen accompanying the myeloid form of the disease is decreased in size, often after a few days of treatment, but usually within three or four weeks. The anemia of the lymphatic form is much more severe and yields more slowly to treatment; the leucocyte count usually rises rapidly. Under x-rays the large and small lymphocytes diminish in number, but the blood count does not become normal, even when the cases are apparently cured, for the lymphocytes still predominate. In the myeloid form the blood picture shows a decrease in the number of cells, but retains its pathological character-

istics; for the neutrophilic myelocytes and lymphoid marrow cells persist. There is an increase in the number of mast cells and the nuclei of the polynuclear cells show a division into several parts. They corroborated the finding of earlier investigation in the treatment of the long bones with x-rays in myelogenous leukemia; there is little or doubtful improvement in the blood and no diminution in the size of the spleen, by the action of x-rays.

Acute Aortic Insufficiency of Traumatic Origin.—Deganello (*Brit. Medical Journal*) says that the number of cases of aortic regurgitation due to traumatism, which have been verified by the autopsy, are rarer than is generally believed. The patient was a healthy man, aged 35, a carman, of good constitution, a drinker and smoker, but had not suffered from syphilis and had had no history of any previous cardiac symptoms. On November 15th, 1906, his chest was crushed between a pillar and the wheel of his cart. Although immediately after he was able to go on with his work, he found the next day that he was unable to do any heavy work without shortness of breath, and this unfortunate state of things continued and gradually got worse, so that he died of heart failure in April, 1907. A month after the accident there were evident signs of failing compensation (orthopnea, cyanosis, pulmonary stasis, etc.), marked hypertrophy of the left ventricle, and a loud, musical, diastolic aortic murmur. At the autopsy the two anterior cups of the aortic valve were torn away from their insertion for a certain distance. The whole heart was dilated, especially in the left ventricle, which was also hypertrophied. There were no other endocardial, pericardial, or aortic lesions, and the other viscera were healthy.

He reviews our knowledge of this class of accident. They have been divided into two main groups: (1) where the cause of the rupture proceeds from outside—blows falls, etc.; (2) where the rupture is due to excessive muscular effort, independent of any external trauma. Statistics show that the second group is more common than the first, and in both groups the left side of the heart (in 38 cases collected by Barie 19 affected the aortic valves, 16 the mitral, and three the tricuspid). Men, between 20 and 40, are more affected than women. In both the ectogenic and endogenic ruptures the trauma probably acts, not directly, but by increasing the blood pressure. The symptoms vary with the gravity of the lesion. Usually there is severe pain in the precordium, the epigastrium, or between the shoulders; palpitation, dyspnea, and signs

of valvular disease speedily follow. No very sure diagnosis as to the particular variety of injury in the valve can be made from the character (musical or otherwise) of the murmur. The prognosis is bad, although the possibility of a healed laceration cannot be excluded.

Gumma of the Heart Producing Symptoms of Stokes-Adams Disease.—Robinson (Bull. Ayer Clin. Lab.) states as is shown by Erlanger, the Stokes-Adams syndrome is due to failure of the proper transmission of the heart beat from auricle to ventricle through the auriculoventricular bundle. His conclusions were drawn from a clinical study of this syndrome and from experiments upon dogs. Numerous cases, since reported, have verified his findings; the first case was that of Stengel, where an atheromatous patch was found in that part of the septum through which the auriculoventricular bundle passes. There are now on record 16 well authenticated cases of Stokes-Adams syndrome in which the condition of the auriculoventricular bundle has been studied post mortem. In six cases the lesion was definitely recognized as being syphilitic in nature. In five, fibrous change was the destructive process, and in two there were circulatory disturbances. In one case there was thrombosis, in one calcification of the artery caused the lesions, fatty degeneration occurred in two cases; in one case the findings were quite indefinite.

The case reported by the author was clinically a typical case of the syndrome. On admission to hospital the patient was in a state of partial collapse, his skin was blue, extremities and face were cold, and the action of the heart was excessively slow and irregular, there being two or three respirations to each beat of the heart. There was a loud blowing murmur at the apex; the pulse was 34 per minute, respiration 18, temperature 98 deg. F.

The heart at autopsy showed a firm nodular mass situated in the septum and reaching from the tricuspid valve into the right auricle, and also making a projection into the left ventricle just below the aortic orifice. In the right auricle it jutted forward directly over the tricuspid orifice, and in the left ventricle it involved nearly the whole of the ventricular surface of one aortic cusp. Microscopic examination showed the characteristic appearance of syphilitic gumma. Further examination of the specimen showed that the nodular mass obliterated the undefended space of the interventricular septum and entirely filled that part of the septum through which the auriculoventricular bundle runs.

Epileptic Stammering.—Fere (Revue de Med.) says that stammering and epilepsy occur conjointly in a certain number of cases. The epileptic patient sometimes is an habitual stammerer, but the stammering may become much worse after the attacks, indicating the so-called "crises frustées." More rarely, stammering occurs only at longer or shorter intervals, either preceding or following the epileptic attacks, which it sometimes seems to substitute. Under these three conditions, stammering is a direct manifestation, or in other words a symptom of epilepsy.

Statistics and Treatment of Carcinoma

of the Breast.—Schwarz (Beiträge zur Klinischen Chirurgie) gives an elaborate study of the cases of carcinoma of the breast that have occurred during the years 1896-1904 in the surgical clinic at Graz. Satisfactory histories were obtained at 180, though 100 more were admitted for treatment. A curious fact was that heredity could be established in but four cases. As regards age, the range was from twenty to seventy-five, though by far the greatest number occurred between forty and fifty. Seventy-two per cent. had reached the menopause. As is usual in statistics of this character, it was found that the women who gave birth to the largest number of children were less liable to develop this disease, and *vice versa*. Involvement of the right breast, 89 cases, left 96, while in one case both breasts were attacked. History of injury was elicited in 18 cases, seeming to show a much more marked influence from this cause than from heredity. Eighty-eight per cent. of the carcinomata had their origin in the upper half of the breast.

Primary operation was performed on the average fourteen months from the onset of the trouble, and in the fatal cases the patients lived on an average of twenty-four months. Twenty patients died from a variety of causes shortly after operation.

Without local recurrences, there were the following. Nineteen who remained (6.9 per cent.) well three or more years after operation; 4 who died of intercurrent diseases after three years; 8 who died of such maladies before three years; and 54 who died of metastases. Therefore, 85, or 45 per cent., had no local new growths, 81 had such recurrences. Operations for recurrences were carried out in 33 cases. These local new growths appeared at varying intervals from one month after the operation to six and a half years, and most in the first year. There were, then, 64 early and 17 late renewals, or about 9 late renewals to the hundred cases.

Aside from those of the lymph-glands,

most of the metastatic tumors developed in the lungs and pleura. In addition there were six instances of secondary growth in the liver, three in the stomach, one in the brain, one in the spinal cord, and one in the endocardium.

Taking into consideration all patients living and well after operation three or more years, there was a percentage of 14.51 cured. This percentage is not very favorable, but is explained on the grounds that the supraclavicular glands were involved in thirty-six cases; regarding these latter cases as inoperable from the start and ruling them out altogether, the author reports a percentage of 16.66 cured.

Typhoid Cholecystitis.—Doerr (Wiener klin. Woch.) reports a case in which the woman stated that some time previous to the onset of her present trouble she had had an attack of some fever, the exact nature of which she was not aware. She also reported that six years previously she had had an attack of colic, the pains of which radiated toward the right shoulder. On operation he found empyema of the gall-bladder. Smears were made from the pus and on staining bacilli were found closely resembling the typhoid bacillus. In the fresh pus, by animal experimentation, by behavior with the various culture media and by means of the agglutination reaction, typhoid organisms were isolated. Calculi found in the gall-bladder were found to contain the typhoid bacillus in pure culture.

Resection of the Shoulder-Joint.—Catter (British Medical Journal) points out that a rational method of resection of the shoulder should fulfill the following conditions: (1) It should do as little mischief as possible and not endanger any important vessels and nerves; (2) it should be free from difficulty in its performance; (3) it should permit free exposure to sight of all parts of the joint; (4) it should be applicable to every case in which resection of this joint is indicated. The method here proposed by the author consists in temporary resection of the outer third of the clavicle, this fragment of bone, together with the intact deltoid muscle and its circumflex nerve, being turned outward. By this method, which is free from danger, and suitable in all cases, especially in reduction of old anterior dislocation of the head of the humerus, the anterior of the joint is freely exposed. The skin incision extends from a point in the neck about two inches above the junction of the middle with the other third of clavicle, downward over the interspace between the deltoid and pectoralis major muscles. After section of the clavicle

it is necessary, in order to obtain free external rotation of the outer fragment, to divide the attachment of the trapezius, the subclavius, and the coraco-clavicular ligament. After resection of the joint the outer fragment of the clavicle is replaced and fixed in its normal relations by sutures.

The Prognosis of Katatonia.—Raecke (Deutsche med. Woch.) endeavors to follow up the course of 200 cases of katatonia, which came under treatment in the Kiel clinics, from November, 1901, to December, 1905. The after-history of 171 of these cases could be obtained in the beginning of the current year (1908). Of these patients, 27 were cured, 19 were improved, and 125 were unchanged. The duration of the cures in 12 cases was from one to three years, in 15 cases from three to six years. The cases with a favorable outcome had almost all been of subacute onset. The prognosis was not affected by the action of external factors, or a faulty heredity. Paranoiac manifestations at the onset appeared to be of far more favorable augury than an initial depression. Disturbances and irregularities of the pupils (change in shape, and difference in size) were present in 18 per cent. of the cases. Early and pronounced contortions of the face were found to be extremely unfavorable. Great caution is indicated concerning the prognosis in a given case of katatonia, in view of the 16 per cent. of cures and 27 per cent. of essential improvements. The designation of the disease as dementia precox is misleading and should be abandoned.

Vesicular Molar Pregnancy taken for Ovarian Cyst.—An error of diagnosis is reported by Schroder (British Medical Journal). The case was a woman aged forty-nine, who noticed a sudden enlargement of the abdomen. She had borne eight children; all the pregnancies were normal. The period seemed to be regular, it occurred a fortnight before the swelling began, and was followed within a week by slight hemorrhage. The swelling was examined two weeks after it was first noted; it was tense and movable and extended upward to the umbilicus. It could not be defined as entirely separate from the uterus, but appeared to dip into Douglas's pouch behind that organ. The cervix lay high just behind the symphysis. Malignant ovarian tumor adherent to the uterus was diagnosed. When the abdomen was opened it became clear that the tumor was a uterus enlarged up to the standard of the fifth month of pregnancy; it was abnormally soft and vascular. No fetus could be defined through its walls. Supravaginal amputation was performed. Then the cause of the error

became clear; there was a distinct pouching of the uterine walls fitting into Douglas's pouch. The uterine cavity was occupied by a vesicular mole which was invading the walls in the usual manner. The right ovary was in a complete state of atrophy, the left contained a few cysts, but they had not yet been examined microscopically in order to determine if they were of luteum origin.

Some Remarks on the Prevention of Appendicitis.—Tyson, in *The London Lancet*, regards the *b. coli communis* as usually the true causative factor of appendicitis, but requiring some morbid condition of the appendix to set up its action. Ordinary catarrh is common, as seen in changes found post mortem; it probably generally gives no symptoms. Constipation, diarrhea and obstructed or congested bowels cause the morbid change. There seems to have been a great change in the character of appendicitis, as indicated by change in treatment. Formerly most cases were treated medically; though some have required from the start surgical intervention; of late medical or preventive treatment has been ignored, all cases being regarded as surgical from the outset. It is difficult to induce the lay public to take preventive measures while well, against a disease which they have not individually experienced.

Constipation is the most prominent cause of appendicitis, the accumulation of fecal masses may be present even with an existing diarrhea. Oral sepsis is a marked factor and the writer urges the dental profession to devise some means to prevent decay of the teeth, in addition to filling cavities. Defective masticating teeth lead people to swallow food in lumps which are not well digested, go on to the cecum and, lying there, ferment; the artificial soft foods so much used of late lead to insufficient mastication, imperfect digestion, intestinal irritation and inflammation. Alcoholism, excessive, rapid and unnatural eating, lack of rest after eating, and lack of exercise in the wearing of stays, and wrong methods of stooling are important factors in constipation. The writer believes that the primitive method of stooling, squatting over one's heels, with the thighs protecting the inguinal and femoral rings, permits more thorough evacuation of the bowels, and he commends the new styles of closet appliance which favor this attitude.

Iceed foods, meat, fish, game are condemned, but the writer sees no way to avoid their use under present conditions. Defective knowledge of cookery among the masses of the people is deplored. The writer refers

to the vast number of medicinal waters known and used throughout Europe for many centuries, and expresses his belief that the thorough washing, inside and out, which people get at these water cures is of vast importance in promoting health in general and avoiding the causes of appendicitis in particular.

Spontaneous Cure of an Arterio-Venous Aneurism.—Lambert (*Bull. et Mem. de la Soc. de Chir.*) says that the history of this unique case is interesting enough to warrant a perusal in the original. The patient was a man, 28 years of age, who presented himself in the fall of 1904 with a traumatic arterio-venous aneurism in the supra-clavicular region, as a result of a bullet wound. There was a swelling above the clavical, in which a thrill was very clearly manifest. It had the characteristic bruit, and there was no pulsation at the wrist on that side. Movements of the arm were possible although they were somewhat limited. One month after the patient was seen he returned to the hospital suffering from great pain in the member. The arm and hand were cyanotic, although, at this time, so much improvement was noted that no thrill or other unusual sound could be made out in the tumor. Ten days later the tumor was smaller in size, and the tactile sense was the same on the two sides. Movement was becoming more and more free, although the extremity was still cold and painful. As yet no pulse could be felt at the wrist. Two months after the patient was first seen, that is three weeks after the last note, there was no longer pain, the coldness of the extremity was decidedly lessened and nothing could be found at the side of the aneurism. Still a month later the man was so much improved that he could recommence his work, and the only trace of the aneurism remaining was the lack of the radial pulse. He was then pronounced perfectly well, and the seemingly impossible had been accomplished.

Superfetation and Causes of Error in Its Interpretation.—Bouchacourt (*L'Obstet.*) says that for superfetation to occur, two conditions must be present: ovulation must continue during pregnancy, and the spermatozoon and the ovule must meet in spite of the mechanical obstacle of the pregnancy. There is plenty of evidence to show that ovulation does continue during pregnancy. The ovule and spermatozoon may meet easily enough if the first pregnancy is extra-uterine. When the uterus is bifid the double impregnation is easy. Most authors believe that superfetation cannot occur in a normal uterus. But up to the beginning of the fourth month the union of the fetal cov-

erings with the uterine walls is incomplete. The expulsion of two living and viable fetuses at different epochs separated by months, would seem to indicate two different impregnations. He says that error may arise from the different development of the two fetuses in an ordinary twin pregnancy, one being retained longer than the other. The expulsion at the same time of two unequally developed fetuses may be accounted for in the same way. The author believes that anatomical and radiological examinations of the two fetuses should be made in order to demonstrate the differences in periods of development.

Skin-Grafting in the Late Treatment of Severe Burns.—Young (British Medical Journal) having in the treatment of large granulating surfaces resulting from severe burns failed to obtain satisfactory results from Thiersch's method of skin-grafting, has practiced with good results a modification of Wolfe's or Krause's method, in which the whole thickness of the skin is transplanted. The modifications devised by the author relate to (1) the cutting and preparation of the graft and the closure of the fresh wound made in the process; (2) the preparation of the granulating surface to be covered; and (3) the dressing of the grafted surface at the time of the operation and subsequently. The transplanted flap is detached directly from the fascial covering of the muscles, and thus consists of skin and all the underlying fat. After preparation of the granulating surface and closure of the fresh wound, the flap of skin and fat, immersed during the interval in warm saline solution, is laid on the palm of the hand with the epidermic surface downward, and all fat quickly but carefully cut away by means of scissors curved on the flat. The flap should by preference be applied directly to the surface of undisturbed granulation tissue, care having been taken to render this surface quite healthy by removal of sloughs and exuberant granulations, and by thorough cleansing with antiseptic solutions. After the application of one or more grafts the whole surface is covered by a large sheet of perforated oiled silk or wide-meshed muslin or gauze soaked in sterile saline solution or boracic lotion, and over this are placed several layers of aseptic gauze soaked in the same solution, the whole being secured and kept moist by a large sheet of gutta-percha tissue, and a copious swathing of cotton-wool. The author attaches much importance to the detail of a daily dressing from the very outset of the postoperative treatment.

The Differential Diagnosis of Appendicitis and Gynecological Disease.—

Bollenhagen (British Gynecological Journal) referred to the frequency of appendicitis and to the number of abdominal affections in women which, from their great similarity to appendicitis, might be confounded with that condition. In this possible error there were several factors: for instance, the anatomical position of the processus vermiformis, which was frequently attached not only to other neighboring organs, but even to the uterine adnexa themselves; moreover, owing to the uncertain seat of the processus vermiformis, the symptoms, even the seemingly characteristic pain of appendicitis, could not be looked upon as definitive, since pains arising in the genital organs might be referred to the same place. The differentiation, if possible at all, became so only by means of binaural palpation, and it must be remembered that neither the appendix nor the genitals might be in fault, but something else, such as a wandering kidney.

Of the gynecological diseases which may erroneously be diagnosed as appendicitis, the following are the most important: (1) Torsion of the pedicle of an ovarian tumor, a condition in which adhesions are very frequent, especially in small tumors of the right ovary; (2) interrupted extra-uterine pregnancy; (3) and most of all, inflammatory affections of the true adnexa, in which during the acute stage a sure diagnosis is hardly possible, and one has to depend entirely upon the anamnesis. Even in recurrent cases, in which one may have to do with adnexal tumors of some size, the diagnosis is sometimes uncertain, for voluminous pyosalpinx may lie high up in the abdomen. In chronic cases the difficulty is not so great, though even then there may be coexisting disease of both organs. Combined examination is especially important, for nothing certain can be known from the symptoms alone. It is remarkable how often palpable lesions may be found in the right adnexa, to which the pains complained of in the supposed inflammation of the cecum, etc., may be referred with certainty. Combined examination is the more important, as by it one may sometimes discover an exudate or other lesion in Douglas's pouch, and be able to deal with it, in a simple way, from the vagina.

A Contribution to the Pathological Anatomy of Appendicitis.—

Obendorfer (Mitt. a. d. Grenz. d. Med. u. Chir.) gives an admirable review of our knowledge of the pathology of the vermiform appendix. In addition to reviewing the views of others, however, Obendorfer states numerous opin-

ions of his own, based on the examination of over 600 appendices.

The writer says that chronic interstitial inflammation of the appendix occurs much more frequently than is ordinarily supposed, the inflammation being caused by the bacteria and their toxins in the appendicular lumen. The inflammation begins by a swelling of the follicles and an increased cell production in them. The mucosa is not much affected at first. Coincident with this there is a proliferation of young connective tissue in the submucosa. The connective tissue proliferation gradually leads to a thickening of the submucosa, which slowly separating itself from the muscularis, presses upon the mucosa, causing it to atrophy. The result of this is, finally, that the lumen of the appendix is obliterated.

Hand in hand with this connective tissue proliferation, there goes an increase in the elastic tissue in the appendix, particularly in the muscular coat, where it compensates for the destruction of muscle parenchyma, which invariably results from the chronic inflammation. This muscle degeneration results from fatty infiltration, simple atrophy, or from brown pigment atrophy.

He mentions a peculiar picture caused by the cells in the circular muscle layer arranging themselves in parallel rows, asserts that the appendicular lumen seldom contains feces, and combats many views long ago enunciated by Ribbert, Hansemann and others, but he invariably has good grounds for his statements.

Perforated Ulcer of the Duodenum, with Report of 14 Cases.—Smith, in The London Medical Lancet, says that in nine of the cases there was a history of previous digestive disturbance, but in only three were the previous symptoms suggestive of duodenal ulceration, i.e., pain and vomiting some time after the ingestion of food. Hematemesis occurred in but one case and melena in none at all. In most instances the perforation took place while the patient was at work; in two cases after lifting a heavy weight. Severe pain and collapse were marked at the outset. This was followed by a period of well-being, which was again followed by a return of the symptoms and finally general peritonitis. The pulse was uniformly rapid at the onset (100-144). He lays stress on the sick appearance which the patient early presents. These symptoms indicate merely an abdominal perforation; the localization to the duodenum may be diagnosed by (1) previous history of duodenal ulcer; (2) localization of the original pain to the right hypochondrium; (3) site, tenderness and rigidity at the time of examination (in six cases these were on the right

side of the abdomen, in seven they were general); (4) symptoms referred to the right side of the abdomen, but with a definite history of onset in the hypochondrium. These cases frequently mimic appendicitis. Absence or diminution of liver dullness was present in only a minority of cases, and then only when the symptoms of perforated ulcer were obvious. The treatment consisted either in suture, or excision of the ulcer and suture. He believes in irrigation, inasmuch as better results were obtained in the cases where irrigation was employed. Of eleven operated cases, five recovered and six died.

Cæsarean Hysterectomy for Concealed Accidental Hemorrhage.—Targelt (Jul. Obstet. and Gyn. of the British Empire) reports the following case: The woman was 34 years of age, and a multi-gravida at the sixth month of gestation. Antepartal hemorrhage had occurred in two preceding pregnancies. A few hours before admission to the hospital the patient was seized with a sharp pain in the abdomen and soon became faint. The os uteri admitted two fingers and some external hemorrhage occurred. Opium was given, the membranes ruptured and a leg brought down. A little later the patient became pulseless. She was removed to the hospital after firmly tamponing the vagina. The woman was now very pale, the pulse 140, soft and compressible, the uterus tense, hard, tender and reaching to the ensiform. The cervix was undilatable. The uterus was evidently becoming larger. Immediate delivery by ordinary means was deemed impracticable. While delivery by vaginal Cæsarean section would have easily been possible the operator was deterred by the danger of bleeding from the incision as well as of post partal hemorrhage in the paralyzed condition of the uterine muscle. It was quickly decided therefore to perform Cæsarean hysterectomy. The patient recovered slowly with some fever due to infection before admission to the hospital. Convalescence was complicated by a small parametric abscess and by double phlegmasia alba dolens. While conservative Cæsarean section or vaginal Cæsarean section might have been successful it was believed that the danger from infection would have been much greater had the uterus been left.

The Effects of Violet Infusion on Malignant Growths.—Gordon, in The London Medical Lancet, cites four cases in which results from the use of an infusion of violets were so "remarkable" that he has deemed it worth while to publish them.

The first case was an ulcer of the tongue, the second an ulcer of the cervix. The clinical diagnosis in both cases was "carcinoma," but in neither was a microscopical examination made. The third case was one of "leukoplakia" of the tongue in a patient with a clear history of syphilis. Here a microscopical examination reported epithelioma. This case "recurred" and required subsequent removal. The fourth and last case was undoubtedly, both clinically and microscopically, a case of epithelioma of the mouth and lower jaw, but it is difficult to see why the author reports this case among the "remarkable" results, inasmuch as he admits that the patient was not improved under treatment. He consoles himself by ascribing the poor result in this case to alcoholism.

The infusion is made by soaking fifty "Princess of Wales" violets in a jug filled with a pint of boiling water. The jug is allowed to stand for twelve hours, and the green liquid is poured off. Half of this is taken by the patient in divided doses during the day. The other half is applied locally.

The Permanent Results of the Operative Treatment of Basedow's Disease.—

According to Friedheim (Arch. f. Klin. Chir.) twenty cases were treated by partial removal of the thyroid gland. The results, both temporary and permanent, were so good that the writer was thus inspired to investigate the experience of other large German clinics with the following results: Up to 1900 Rehn had a mortality of 21.1% with 50% of cures. However, in the twenty cases under especial consideration there was a mortality of only 5% with 70% of cures. This shows conclusively that the technique of surgery is gradually but surely improving. It is very interesting to note that the author states that Mikulicz with eighteen cases had ten cures and one death. Kroenlein operated on twenty-four cases, of which two resulted fatally; sixteen were cured. The largest number of cases, as may be naturally supposed, were operated upon by Kocher, namely, fifty-nine. Of these forty-five were cured and four died. Koenig had but eight cases, of which four were cured and one died. From all the statistics at his command the author is able to state that there is practically no medical treatment which will result in a cure of the disease, while if left alone about 12 per cent. of these patients die; consequently we have even a stronger reason than would otherwise be the case, for operating upon patients who do not spontaneously recover.

Pavy's Method of Determining Glucose in Urine.—Sahli (Deutsch. med. Wochenschr.) has expressed himself very sceptical as to the value of Pavy's method of determining the percentage of sugar in urine. As is well known, Pavy's method differs from Fehling's in that by means of the addition of ammonia, the precipitation of cuprous oxide is prevented. The end reaction is characterized by the complete decolorization of the test fluid. Further experience with the method has now convinced Sahli that it is by far the most satisfactory one for routine glucose determination. The author explains his change of opinion by stating that the trustworthiness of the method depends absolutely upon the observance of certain precautions not sufficiently emphasized by Pavy. For a discussion of the question the reader must be referred to the original article. Suffice it here to state that the precautions requisite according to Sahli are: 1. The test fluid must be sufficiently diluted with distilled water (best 1 to 4). 2. The test fluid must be kept boiling very slightly during the course of the determination, not violently, as is often done.

The Pathogenesis of Acute Purulent Otitis Media in Children.—

Tanturri (Gazzetta internazionale di Medicina) calls attention to the observation of Dieulafoy, who stated that like the pathogenesis of appendicitis, where the enclosed space of the appendix increased the virulence of the intestinal infection, so in the enclosed space of the middle ear, the virulence of the infection was enhanced by this very enclosure. His opinion coincides with that of Dieulafoy in this. To prove the correctness of these views, the author experimented on rabbits. He placed a cotton tampon in the post-nasal space, to close the ostium of the Eustachian tube. This procedure, in itself resulted every time it was tried in producing a middle ear infection.

In commenting on these experiments, Professor Gradenigo in Turin holds that perhaps the cotton tampon becomes infected in the post-nasal space, and the tympanic cavity becomes secondarily infected, a mode of infection of the ear which is very often seen in clinical observation where the pharynx is filled.

The Action of Thiosinamin in Traumatic Strictures.—

Mohr (Therap. Monatsh.) reports a case of stricture of the left parotid duct following a lacerated wound of the left cheek, which extended from the outer canthus of the eye to the angle of the jaw. This was relieved by operation, but repeatedly closed up in spite of systematic dilatation with sounds. Subcutaneous in-

jections of thiosinamin were then begun in connection with the dilatations. A ten per cent. aqueous solution with twenty per cent. of glycerin was employed, of which one cc. at a dose was injected in distant parts of the body. Eleven injections were made in the course of four weeks. Five injections of $\frac{1}{4}$ cc., of the solution were also made in the immediate neighborhood of the stricture. In the third week the stricture became less firm, and at the end of the fourth week it had yielded to such an extent that no retention of fluid occurred, although dilatation had been discontinued. No recurrence had taken place two and one-half months later.

The author considers thiosinamin as a valuable adjunct to mechanical or operative measures for the relief of stricture in that it in time materially softens the scar-tissue, often makes effective otherwise unsuccessful treatment, undoubtedly hastens recovery and tends to prevent recurrences.

The General Consideration of the Therapeutic Uses of Diet.—Hutchinson, in

The London Practitioner, calls attention to the loose way in which dietetic means are employed as compared with the relative exactitude and consistency with which drugs are prescribed, and says that this is due in no small measure to the lack of proper system in instruction in dietetics in our schools. In this article he endeavors to sketch very briefly the general uses and limitations of dietetics in the cure of disease, and in the conclusion of the article he lays down some general rules which may well be borne in mind. (1) When prescribing a diet for a case of local disease, one must take care not to sacrifice the whole to the part. (2) No article of food should be forbidden unless one has good reason for doing so. (3) In acute diseases one should recommend, in chronic forbid. (4) Before recommending any article, find out whether the patient likes it and whether it agrees with him. (5) If an article disagrees it is better to reduce its amount in the diet than to cut it off altogether. (6) General changes in diet should be proposed and made gradually. He further calls attention to the comparative immunity of the carnivora to tuberculosis and to the success which has attended a raw meat diet, and while he does not maintain that the subject is definitely settled, he suggests that it is well worthy of consideration. If we would escape the charges of inconsistency and arbitrariness apt to be brought upon us with some justice when we come to the dietetic part of our plans of treatment, we should never make a change in a patient's customary diet unless we have definite grounds for so doing.

A Note on Congenital Dislocation of the Hip-Joint and its Modern Treatment.

—Clarke (British Medical Journal) says that congenital dislocation of the hip must now be classed with congenital club-foot among curable affections. This really great advance in surgery is due to Lorenz, who perfected the gymnastic and manipulative method of treatment. If the patient is submitted to treatment at a suitable age and the surgeon is experienced in the various steps of the operation, the method involves no serious risk, the patient invariably improves in general health and strength, and the after treatment may be carried out at home under the supervision of the family medical practitioner. A good deal has been said concerning the anatomical aspects of the Lorenz manipulative operation. Doubts have been expressed as to whether the reduction is a true one. As long as the functional effect is satisfactory, the previous disabilities being permanently removed, it hardly matters whether or not a portion of the joint capsule intervenes between the femoral head and the acetabulum, so long as it is removed by pressure atrophy. In nearly every case the head of the femur can be brought to rest on the acetabular surface, whether at the operation or subsequently. The dangers of the treatment are greatly exaggerated. Up to four years of age there is no need to cause anything approaching violent laceration of muscles. In older children up to the age limit, the necessary manipulations can be rendered free from danger but suitable preliminary preparations.

Vaccinal Immunity in Childhood—Comby (Arch. de Med. des Enf.) concludes that the immunity conferred by vaccination is at times lost very quickly. The duration varies very greatly in different subjects and we have no means of estimating this duration in a given case, even approximately. In the face of such variance prudence demands universal vaccination in times of epidemics, even of children who have recently been successfully vaccinated.

When a first vaccination is negative in a child, a second, a third, a fourth inoculation should be made if necessary, for it rarely happens that one does not get a positive result finally.

Even though it be admitted that vaccination will not in every case protect absolutely against smallpox, it should not be forgotten that any resulting infection in vaccinated cases is always mild.

Typhoid Fever in v. Jaksch's Clinic.—Skutezky (Zeitcher f. Heilk.) during the years 1889 to 1903 there were treated at v. Jaksch's clinic, in Prag, some 703 cases of

typhoid fever, with a mortality of 12.5 per cent. The best results as regards early diagnosis were obtained by means of splenic punctures. The enlarged spleen was punctured, with scrupulous asepsis, a few drops of splenic blood withdrawn and sown upon nutrient media. By this means typhoid bacilli can be grown from the patient's blood very early in the disease. The procedure, if certain contraindications be observed, is practically free from danger. As regards the Widal test, v. Jaksch prefers Ficker's modification to the use of living cultures. Since 1901 all typhoid patients were subjected to an exclusive hydro-therapeutic regimen. As soon as the axillary temperature reached 39 degrees C. (102 degrees F.) a lukewarm bath of a temperature of 30 degrees C. (86 degrees F.) and lasting 10-15 minutes, is given. This may be repeated 2-4 times daily. Liquid diet until the seventh fever-free day; no alcohol. The urine is kept sterile until far into the stage of convalescence by means of the administration of urotropin.

Pathological Findings in the Labyrinth in Chronic Otitis Media Purulenta.—Politzer (Verhandlung der Deutsch. Otolog. Gesellschaft) examined 21 temporal bones from the autopsies of patients who had suffered from otitis media purulenta chronica. In all there were 10 or 11 cases which were microscopically examined.

All the cases gave evidence of various lesions at the labyrinth windows; in the vestibule; the semi-circular canals; and in the cochlea. Often the purulent exudate had penetrated into the cochlea and from there to the peripheral part of the acoustic, oftentimes being separated from the central part by a sharp line of demarcation.

Fully one-half of the cases had died as the result of meningitis. The cases demonstrated, how frequently serious pathological changes take place in the chronic purulent affections, and the author is inclined to the opinion, that labyrinthine involvement occurs much oftener in those affections than is usually thought to be possible.

When the clinical picture is well developed, it is usually easy to make a diagnosis of labyrinth involvement during life. Politzer holds the Weber test as untrustworthy as an aid to diagnosis; Schwabach's test, on the other hand, is held by him as of great diagnostic importance.

Operative methods has as yet not given entirely satisfactory results. The writer points out the slowness with which the destructive process advances, and believes that an attempt should be made to reach the process, even following it into the deep

parts of the internal ear.

The author recommends an operative procedure devised which while sparing the facial nerve any injury, permits the removal of diseased areas as far as the internal auditory canal.

Abscess (Pancreatic?) of Lesser Peritoneal Cavity—Pauchet (British Medical Journal) reports a case in which a man, aged thirty-five, without any previous history of gastric disorder, was seized with violent pain and faintness, followed by vomiting and a rise of temperature to 100.5 deg. for two or three days. At the end of that time a swelling developed in the epigastrium. Pleural friction sounds were audible, and there was dyspnea, with earthly complexion and extreme depression. Pauchet defined a tumor above the umbilicus, dull on percussion, and not fluctuating; there was resonance all around its limits, and the liver was separated from the mass by a resonant area, which proved to be the stomach. An incision was made above the umbilicus, exposing the stomach and the lesser omentum. On incising that peritoneal fold clear pus full of globules of grease and and sloughy fragments came away. The pus smelled faint rather than fetid. The abscess wall was marsupialized and washed out with peroxide of hydrogen. A fistulous tract developed, from whence issued a fluid which digested the skin. It closed completely in two months' time, a slight hernia of the cicatrix developing.

New Quantitative Test for Acetone.—Bluth (Deutsche med. Wochenschrift) introduces a test which is based on the delay in the change of color which is produced when the urine is treated with sodium nitrocyanoide, sodium hydrate, and acetic acid. The more acetone present the slower will be the change in color. The author claims for this test that it does away with distillation and titration; it takes from fifteen to thirty minutes, and is very accurate.

Paraffin Injections in the Tissues.---

Kirschner (Virchow's Archives) has demonstrated that paraffin after its injection into the tissues is not absorbed like catgut, neither does it become encapsulated like a foreign body. The connective tissue grows around and into the mass of paraffin, and the final result is an absorption of it. The organization of the paraffin proceeds with varying rapidity, probably owing to the different degree of pressure exerted on it by the surrounding tissue.

Pathology of Bromide Eruptions.—Pasinini (Annals de Derm. et Syph.) says that histologically the lesions of this eruption

are always the same, whether they may be so clinically or not. The variety most frequent is the papulo-pustule in the form of acne occurring in the portions rich in vascularity and sebaceous glands. The toxic substance is the free bromine which penetrates into the circulation coming in contact with the tissues and there exercises a double action, a chemo-tactic action and the attraction of leucocytes, and a degenerative action which is exercised upon the connective tissue cells.

Forms of Tabes Dorsalis Which are not Frequently Described.—Lupinsky (Deut. Zeit. f. Nervenheilkunde) calls attention to the fact that some cases of tabes, especially in their earlier stages, show disturbances chiefly in the motor sphere and are not correctly diagnosed as tabes until long after this stage has passed. It has been more or less the custom to interpret these symptoms when they are recognized as due to the incoordination and not to a true paresis. In a case noted here by the author there was found in the preataxic stage a well marked paresis of the crossed variety in the upper and lower extremity. A number of cases are described in which the author's contention appears abundantly proven and he concludes as follows: There are cases of tabes dorsalis in which the symptoms in the earliest stages take the form of a paralysis or paresis in the motor system either in the upper or lower extremities. That these cases belong to the group of tabes dorsalis can at times be determined in the beginning by finding other evidences of tabes present, and at times the further development of the disease makes the diagnosis first possible. The motor symptoms in these cases must be reckoned in among the clinical symptoms of the disease tabes dorsalis.

Diagnosis and Treatment of the Mesenteric Glands During Childhood.—Hecht (Therapie de Gegenwart) says that tuberculosis of the glands of the mesentery is not yet sufficiently known, and the diagnosis is usually made too late. The principal symptom consists in abdominal pains, which may have existed for years. The belly is distended in shape of a ball and often extremely tender on palpation. The veins of the abdominal walls are dilated, and the inguinal glands are swollen. Obstinate diarrhoea exists in cases where the bowel is diseased at the same time. In a number of cases the evacuations are normal. The only symptom pointing to the presence of intestinal disease may be the abdominal pain. The diagnosis is easy in such cases only where it is possible to palpate the glands of the mesentery, which are only moderately swollen in the majority of

cases, or their conglomerations. This is unfortunately not often feasible. The differential diagnosis from perityphlitis may be very difficult. The prognosis is not unfavorable, as a rule, provided the disease is treated in a timely, persistent and rational manner. Warm compresses and inunctions with soft soap are recommended as suitable remedies. He found creosotal just as useful here as in tuberculous swellings of the bronchial and cervical glands. The author usually begins with inunctions of creosotal-vasogen (20 per cent.), followed later on by creosotal-fucol, which is kept up for months. Mineral salt and sea bathing likewise enter into consideration.

The Operative Treatment of Purulent Meningitis.—Kummel (Archiv f. Klin. Chir.) goes so far as to say that he will in future, in epidemic cerebro-spinal meningitis, when the lumbar puncture does not relieve the condition, make an extensive opening of the subdural spaces of the head. We have long become a unit in thus treating similar infections the result of ear disease. No one now hesitates to open them and drain them widely. Eight out of twelve such cases are on record in literature as being completely cured. He reports a case of purulent meningitis after basal fracture in which operation saved the patient's life, even after lumbar puncture had demonstrated the presence of pus. In one day the patient was very much better and went on satisfactorily to complete recovery. This was a diffuse meningitis although, of course, it cannot be classed as one of the epidemic variety. Still, the author feels justified in concluding that a similar result might be obtained in this other most dreaded class of cases. It may be necessary to open either spinal canal or the cranial cavity or possibly both.

The Diagnostic Puncture of the Testicles.—Posner (Berl. klin. Wochenschr.) says that before undertaking the treatment, operative or internal, of azoospermia, it is essential to ascertain whether the absence of spermatozoa in the semen is due to mechanical obstruction somewhere or to failure on the part of the testes to produce the male elements. For this purpose Posner advises the puncture of the testicle and aspiration of a drop of its contents. The skin is sterilized scrupulously, a hypodermic syringe with rather large needle is used, and the drop so obtained examined microscopically. The little operation is almost painless, is never followed by ill results (perfect asepsis being pre-supposed), and gives positive information regarding the secretory power of the testis. In all his observations except one, the spermatozoa

so obtained were motionless. This is in accord with the generally adopted theory that the addition of prostatic secretion to the semen is requisite for giving the spermatozoa motility. In one of his cases, however, for some unknown reason, the aspirated seminal secretion showed very active motion.

Leukemic Hemorrhage Ending Fatally—Bostetter (Centralblatt für Gynäkologie,) reports the case of primipara who in the seventh month of pregnancy entered his clinic for hemorrhage. The urine contained blood, and there was dulness over both sides of the chest. The patient died suddenly with symptoms of internal hemorrhage. The post-mortem revealed a leukemia, and there was also present a double suppurative tonsillitis. He suggests that the tonsillitis may have been the beginning of a sepsis which induced a hemorrhage, although the leukemia and the presence of large quantities of blood in both pleural cavities would be a sufficient cause of death.

Miscellaneous.

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Tonics and the Climacteric.

A good many physicians realize the value of effective tonic medication during that rather variable period in a woman's life known as the climacteric. The tendency to the psycho-neuroses when such a patient's general vitality is low, emphasizes the necessity of bringing the nutrition and general health to as nearly normal point as possible. As a usual thing to the extent that this can be accomplished, to that extent the recognized dangers can be averted. Extensive clinical experience has proven beyond controversy that no remedy has a broader field of utility as a general reconstructive and restorative than Gray's Glycerine Tonic Comp. Under its administration the digestion improves, absorption and assimilation are increased, and proper elimination promoted. The nervous system is rapidly toned and helped to recover its balance. Thus its resistance to dangerous influences is promptly raised, and the woman undergoing the "change of life" instead of drifting into a condition of permanent invalidism, and becoming a neurotic, is able, through a re-establishment of her vigor and strength, to look on her symptoms as simply incidental to a physiological process. Greater reliance, therefore, on the tonic influence of Gray's Glycerine Tonic Comp. and less resort to bromides and opiates, has saved many a woman from neurotic maladies that are worse in many respects than death itself.

Sympathetic Irritation Following Subluxation of the Lens.—Roure (Ann. d'Oculist, reports four cases as follows:

(1). A shruuken, cataractous, subluxated lens became fixed in the pupil in such a manner that half of it was behind, half in front of the sphincter. The irritation gave rise to energetic contraction of the pupil. A sympathetic irritation was soon manifest in the other eye, subsiding at once on removal of the dislocated lens.

(2). A cataractous lens in a child became subluxated as the result of a blow. Sympathetic irritation in the fellow eye subsided on removal of the lens.

(3). A subluxated calcareous lens in an atrophic eye gave rise to sympathetic irritation. Eucleation followed by disappearance of symptoms.

(4). A subluxated cataract (Morgagnian) rubbed against the posterior surface of the iris. Sympathetic irritation. Removal of lens followed by disappearance of signs of irritation.

The sympathetic irritation is ascribed to constant friction of the lens against the iris. Prompt removal of the lens is indicated.

A Traumatic (Maternal) Birth Palsy.—Herzog (Deutsch. Arch. f. klin. Med.) bases the following conclusions upon statements contained in the literature and upon personal observation of the condition in an adult female patient.

The predominating involvement of the peroneal nerve in this form of palsy, and the distribution of the paralysis in the areas supplied by it, is explained by the topographical situation of the nerve in the pelvis, and its relatively considerable exposure. The external muscles of the leg receive their nerve supply from the lumbar cord alone, the peronei from the lumbosacral plexus. In traumatic paralysis, with uniform injury of the entire peroneal nerve, the peroneal muscles are least liable to suffer, as offering the least resistance. The forceps is not supposed to be a factor in the etiology of traumatic peroneal palsy, which is to be explained rather by the prolonged duration of labor. The course of these palsies is protracted, and their prognosis not very favorable.

Aortic Insufficiency.—Couto (Semaine Medicale) maintains, that in pure aortic insufficiency there are two murmurs on auscultation, a diastolic and a presystolic. The latter he believes is produced by a regurgitation of blood from the aorta through the valva into the ventricle during the first stage of systolic, and that the organic cause is the same as that producing faulty closure of the semi-lunars during diastole. The author says that when aortic stenosis is combined with insufficiency there is a harsh systolic murmur separating the presystolic and diastolic murmurs.

Study of the Character and Origin of the Foetor in Ozæna.—Frese, (Dtsch. Arch. f. Klin. Medizin) as the result of his examinations arrives at the following conclusions:

1. The ozæna odor is more in the nature of a "bouquet" than a clear and distinct odor.

2. The chemical analysis of the secretions show there are present substances which are similar to those found in decaying albuminous bodies.

3. Noteworthy are the presence of fatty acids which form characteristic component parts of the ozæna foetor. These probably exist as a direct transformation from neutral fats.

4. The ozæna secretion is discharged odorless from the glands, it degenerates very fast, and the presence of numerous micro-organisms aids this degeneration.

The researches of the author demonstrated that all parts of the nose may take part in the production of the secretions in ozæna,

For example, when he placed a tampon in the lower portion in the middle meatus, thus shutting off both it and the pharynx, he found that the secretions coming from the inferior turbinate, the lower part of the septum and the nasal floor came away in the same degenerated state as usual. This observation contradicts the theory that the secretions arise from the diseased accessory sinuses.

5. The so-called *ozæna bacillus* is not able to cause in itself the odor of the secretions; the odor is brought about by the action of the various organisms held in the secretions.

6. The foul odor from the products of tertiary nasal syphilis evidences similar characteristics as are found in the products of *ozæna*.

Ethical Elegance.

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Cesarean Section in Death from Heart

Disease.—Nacke (Zent. f. Gyn.) says that by carefully observing the fetal heart action, a living child may be delivered after the mother has drawn her last breath in death from heart disease. The author describes the delivery of a child in this way, by him, after the death of the patient who had mitral stenosis in a marked degree, with a much hypertrophied right ventricle. The child was delivered living after she had ceased to

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breathe, but was asphyxiated and died as a result of some rather violent efforts to establish respiration. The writer says that if we operate while the woman is moribund we may injure her chance of life and get no better results to the child. While in eclampsia the use of an anesthetic will be of no detriment, because the heart is strong and arterial tension high, in cases of heart disease, anesthesia is impossible and shock is a great danger.

Fetal Achondroplasia with Alterations of the Placenta.

—Marconi (Ann. di Ostet. e Gin.) describes a case of macerated fetus combined with enormous placenta, much altered in constitution, occurring in a woman who had shown some evidences of syphilis. The limbs of the fetus of seven months were very small, entirely out of proportion to the size of the body. The skeleton was so little developed that the author denominates it a case of achondroplasia. The placenta was enormous, pale in color and friable. Some of the villi were of normal size, while others were large and entirely destitute of blood vessels. He says the achondroplasia to have been the result of the alterations in the placenta, which were due to some infective cause, perhaps syphilis. The changes are truly toxic in origin, the toxin producing a disturbance

of function in the placenta and an alteration in development as a result. There is some evidence to show that such deformity is hereditary.

The Detection of Albumose in the Urine

—Pittipaldi (Riforma med.) says that none of the simpler tests for albumose in the urine are either very delicate or quite trustworthy. He suggests applying a reagent similar to that of Spiegler (which, as is well known, precipitates both albumen and albumose), to urine freed from albumen. His method is as follows: To 5 cc. urine add 5 drops of a saturated solution of trichloroacetic acid. Boil. If this produces no precipitate, allow the mixture to stand five or six hours until a sediment forms. Then filter and add a solution of mercuric iodide in potassium iodide. In the absence of certain alkaloids, especially quinine, a precipitate indicates the presence of albumose.

The Influence of Rotatory Movement Around the Vertical Axis of the Body upon Nystagmus.

—Drs. Cassirer and Loewer (Neurolog. Centralblatt) obtained the following uniform findings in all cases. The horizontal nystagmus present in the lateral movements of the eyeball, is inhibited in the direction of the eyeball corresponding to the direction of the rotation, after repeated rotation around the vertical axis of the body, the head being held upright; in other words, when there has been, for instance, horizontal nystagmus towards the right when looking towards the right side, the eyes will remain entirely at rest, when looking towards the right, after repeated dextro-rotation. Furthermore, the horizontal nystagmus present in lateral movements of the eyeball is increased in the direction of the eyeball opposite to the rotatory direction, after repeated rotation around the vertical axis of the body; in other words, when there has been, for instance, horizontal nystagmus towards the right when looking towards the right side, this nystagmus is considerably increased, when looking towards the right side, after repeated laevo-rotation. This law is explained in such a way that the pathological stimulus which overcomes the primary nystagmus in one labyrinth, is overcompensated in the first named instance, by the adequate stimulation of the other labyrinth, as supplied by the rotation.

Iron Salicylate in Tonsillitis and Erysipelas.—In salicylate, according to Gray (Edinburgh Medical Journal) when freshly made, is a powerful febrifuge without inducing diaphoresis, and has a specific influence in erysipelas and acute tonsillitis. He employs a mixture made by dissolving

1 drachm of sodium salicylate in 2 ounces of water; to this is added a mixture consisting iron perchloride, 2 drachms; potassium chlorate, $\frac{1}{2}$ drachm; glycerin, $\frac{1}{2}$ ounce, and water to 8 ounces is added, and of this the dose is 1 ounce every three or four hours. In both erysipelas and tonsillitis local treatment was also employed in connection with the iron salicylate, and rather remarkable results were obtained in a large number of cases. The tonsillar inflammations were of simple rheumatic, diphtheritic, and scarlatinal type, and uniformly quick recoveries were made. The preparation has the advantages of not tasting unpleasant and of being well borne by the stomach.

An Unusual Case of Hastric Tetany.

Edenhinzen (Archiv fuer Verdauungskrankheiten) mentions a case in which attacks of tetany were provoked by a gastric trouble was the primary case of the attacks. The paroxysms could also be called forth by special psychic influences, the patient being a profound neurasthenic. The attacks were primarily typical tetany attacks, but afterwards evolved into pseudo-tetany on the basis of neurasthenia. As for the cause of tetany, the author is not entirely clear as to which theory to apply to this case. The theory of autointoxication could hardly be applied here, inasmuch as there was no gastric retention.

Diagnosis of Flatfoot.—Schumann (Munchener med. Woch.) that frequently flatfoot cannot be diagnosed until the foot is put on the ground and the weight of the body superimposed. In order to record the deformity a piece of writing paper is dipped in liquor ferri diluted one-half, the sole of the foot is painted with a 5-per cent solution of potassium ferrocyanide, and the patient allowed to stand on the prepared paper. The result is a blue imprint of the plantar surface of the foot on a yellow background.

Lactic Acid in Gastric Carcinoma.—Sick (Deutsche Archiv fur klin. Med.) investigated thirty-four cases of doubtful carcinoma of the stomach. The writer concludes from his findings in these cases that the Oppler-Boaz bacilli do not flourish in the stomach unless there is more or less of a deficiency of hydrochloric acid. Lack of motor power also favors their growth. The most important factor favoring their growth and the formation of lactic acid is the presence of the soluble albuminoids produced by the autolysis of cancerous growths. The long bacilli are present in the mouths of healthy persons and patients suffering from hypacidity, but they do not flourish as in cases of ulcerating cancer.

The Charlotte Medical Journal.

VOL. LVIII

CHARLOTTE, N. C., NOVEMBER, 1908.

No. 5

Sacro-Iliac Disease.

By C. R. Andrews, M.D., and Michael Hoke, M.D.,
Atlanta, Ga.

In considering the sacro-iliac synchondroses, it must be remembered that we are dealing with true joints which are capable of distinct motion, but which, unlike the other joints of the skeletal structure, consist of flat, bony surfaces, which are opposed in oblique axes. In consequence of this fact, the stability of these articulations is dependent upon the strength and tone of the muscles and ligaments which act doubly by preserving an anatomic relation and protecting them.

The pelvic girdle may be considered as the structural base for the skeleton, having attached to it the strong trunk muscles as well as all the important muscles of the thigh. Hence it is evident that any instability of the pelvic articulations must interfere with the proper action of the muscles thereunto attached, and conversely it is true that any lack of development or alteration in tone of the muscles and ligaments, which protect and hold in position the pelvic joints, must likewise render impossible their normal anatomic relation, and with change of anatomic relation we have impaired function.

Anatomy.—The articular surfaces of the sacro-iliac synchondroses are broad and flat, the obliquity of their axes being in two directions, upward and outward and forward and outward. A consideration of the differences between the narrow approximation of bony surfaces forming the pelvic articulation, and the broad, extensive apposition between the sacrum and the ilium will clearly demonstrate that the stability of the pelvic girdle is dependent upon the sacro-iliac articulations and not the symphysis pubis. As a matter of fact, in cases of extrophy of the bladder, the pubic bones may be absent without seriously interfering with locomotion.

Motion is a normal function of the sacro-iliac joints and consists of a tilting of the sacrum on the ilia or the ilia on the sacrum. The axis of this motion is a transverse one, situated about the middle of the sacrum. It is obvious that in tilting, when the promontory of the sacrum moves forward, the tip moves backward, and vice versa.

Certain physiological conditions bear a direct relation to relaxation of the sacro-iliac joints. It is a well known fact that there is a demonstrable amount of relaxation during pregnancy, which becomes more marked toward delivery. This relaxation

may not be sufficiently marked to deserve attention, while on the other hand it may be so great as to cause serious inconvenience as regards pain and discomfort, and materially interfere with locomotion, requiring treatment both during pregnancy and after delivery.

During menstruation, which physiologically may be considered as a miniature pregnancy, there is often a relaxation of the joints in question. This unquestionably explains many of the backaches occurring at the menstrual period, which may often require mechanical support for their alleviation.

During pregnancy and menstruation, congestion of the pelvic viscera is present, and since these conditions may cause relaxation of the sacro-iliac joints, Goldthwait suggests that abnormal congestion of the pelvic organs might cause relaxation, and conversely long standing relaxation of the sacro-iliac synchondroses might induce congestion of the pelvic viscera. It has been shown that these joint conditions often improve after plastic operations on the perineum and cervix, and removal of uterine tumors.

From an obstetric viewpoint the movements of the sacrum are of importance. If the upper part of the sacrum be tilted backwards, the anterior-posterior diameter of the brim of the pelvis is increased, and on account of the double obliquity of the articular surfaces, the lateral diameter is likewise increased. But, when in tilting, the axis of motion, passing through the center of the sacrum, as the diameters of the pelvic brim are increased, the tip of the sacrum moves forward and the diameters of the outlet are decreased correspondingly. A knowledge of these facts is often of value to the accoucheur, since the pressure necessary to produce these sacral movements is not at all unbearable by the patient.

Again, since the trunk muscles, which are attached to the pelvis, play such an important part in delivery, the auxiliary expulsive force contributed by the trunk muscles is greatly interfered with if the sacro-iliac joints be relaxed, because in that case the basal attachments of these muscles is insecure. This insecurity may be relieved at the time of delivery by a tight fitting belt or bandage about the trochanters.

In the consideration of this subject it must be remembered that we are dealing with true joints, which are subject to the same diseases as joints in other parts of the body: tuberculosis, malignancy, injury,

toxic inflammations, etc. But it is the desire of the authors to draw particular attention in this imperfect exposition of the subject, to the condition of relaxation and chronic strain, often due to faulty posture, associated with toxic inflammation. When we remember that these joints consist of flat, bony surfaces with articular axes in an oblique direction, with no bony projections, and held together only by muscles and ligaments, it is not surprising that chronic strain and relaxation are so common. Ligamentous and muscular support are quite less ineffectual than where the heads of bones are fitted into globular cavities, or the articular surfaces superimposed upon each other.

It has been observed by us many times that with an existing basal condition of excessive intestinal putrefaction, any injury or undue strain to a joint may precipitate a toxic inflammation. And since the sacro-iliac joints are liable to injury and strain, toxic inflammation of these joints is rather common. This superimposed toxic process is of great importance, since, for the relief of the sufferer, mechanical measures must not only be adopted, but also due consideration must be given to the intestinal condition.

The mildest manifestation of disturbance in these joints is a slight strain or discomfort in faulty attitudes, as, for example, in stooping. The muscles protect the joints for a while, but as these tire the strain is put upon the ligaments, and as these begin to relax and become tense, discomfort is felt. This is usually relieved by stretching, as in so doing the lumbar spine is drawn forward, carrying forward also the sacrum into its normal position, the strain thereby being relieved. Downward strain of these joints is also possible from long standing and is relieved by a change of attitude which brings other muscles into play. Strain may also occur in the recumbent position, the spinal muscles finally tiring and the lumbar spine sagging, carrying backward with it the upper part of the sacrum. After anæsthetics where relaxation has been complete and the patient lying on a hard table which cannot adapt itself to the shape of the back, the lumbar spine sags greatly, and it is in this way that the great majority of postoperative backaches are explained. Such backaches are easily controlled by supporting the lumbar spine with a pillow, and holding firmly together the sacro-iliac articulations with a belt, bandage or adhesive strapping. Backaches occur in the same manner in acute illnesses where the general muscular system becomes relaxed and the individual, lying largely

on the back, the lumbar spine is permitted to sag.

The same condition of affairs occurs from long sitting if the body is not held erect but is permitted to "slouch," the lumbar spine becomes flexed, carrying the base of the sacrum backward and straining the sacro-iliac ligaments.

In all these conditions previously described, excepting the toxic inflammations, there has been no actual damage done the joints. The condition of strain and accompanying symptoms have been relieved with change of position. If, however, strain is continued until the bones are displaced, or if the strain be sudden and sufficiently severe to lacerate some of the ligaments, we have a true sprain, accompanied by a sharp pain or "stitch" in the back, with the pain oftentimes referred to one or the other of the sacro-iliac joints. Lumbago is very often simply a manifestation of a sprain of a sacro-iliac joint.

When a sprain with displacement occurs, the displacement is often reduced when the correct attitude is assumed. But if the small irregularities on the articular surfaces of the sacrum and the ilia catch, then manipulation may be necessary for reduction.

Again, if the deforming force be moderate in severity and continued over a long period of time, a condition of "chronic relaxation" is reached, with or without displacement. Great discomfort and disability occur in this condition incident to the instability of the pelvis, due to relaxation of the sacro-iliac ligaments. The attachment of the thigh and trunk muscles to the pelvis explains any disability that may occur in such a condition.

The sacral plexus of nerves containing branches from the lumbar plexus is situated just in front of the sacro-iliac articulations, and it is obvious that strain or displacement of these joints may produce irritation in the nerve trunks situated anteriorly to them. The symptoms resulting in this way are dependent on the nerve trunks injured and the severity of the injury. In this way, also, referred pains in the lower extremities and areas of anæsthesia and hyperæsthesia are explained. Of greater importance, however, are obstinate sciaticas which, in the vast majority of cases, are due to irritation produced by the sacro-iliac synchondroses. Dr. Goldthwait tells me that nine cases out of every ten of sciatica are produced in this way, and its importance as regards treatment is quite evident. He states that many cases of sciatica cannot be cured unless the sacro-iliac joints are properly treated. Since it is a well established fact that when a nerve is injured, pain is referred to its dis-

tribution and not to the seat of injury, the futility of treatment applied to the seat of pain is quite evident.

When displacement occurs, it is most often backward with reference to the upper part of the sacrum. In acute conditions this displacement is usually unilateral, while in the cases of long standing "chronic relaxation," both articulations are involved resulting in the flat back so commonly seen.

Forward displacement of the sacrum, however, is possible, and in falling from great heights and striking on the feet, it may actually be driven downward with the ilia raised and the legs apparently shortened.

Nerve irritation with referred pain is most common in cases of sudden unilateral displacement. The pain may vary from a slight twinge to one severe in character. When the relaxation is slow and the displacement is gradual, the nerve trunks adapt themselves to these changes and referred pain is not so common.

Of the infectious processes occurring in these joints, the non-tubercular are more common than the tubercular, though both are very rare. Toxic inflammations, however, are quite common, the resultant damage varying from a few adhesions to complete ankylosis. Toxic inflammation may occur as a part of a general polyarticular involvement.

Proper attitude is dependent on normal muscular tone and the security of the base to which the trunk muscles are attached. If this be true, it is evident that with an insecure pelvis, correct posture cannot be assumed without undue muscular effort. With a pelvic girdle whose joints are relaxed, the body droops forward, in which condition the support given the abdominal viscera by the trunk muscles is removed and the abdominal organs sag. In the treatment of these various ptoses due consideration must be accorded the pelvic girdle if the ligaments which hold it secure are relaxed or if, for any reason, it be insecure.

Symptoms.—The most important symptom to be considered in the diagnosis of this condition is limitation of motion. If the sacro-iliac joints be diseased or strained, any motion which causes strain will be limited involuntarily, as is exactly the case with other joints of the body when diseased. In the case of the sacro-iliac joints, limitation of motion may be shown by motions of the body on the thighs, or by motions of the thighs on the body. If the knees be held stiff and the body bent forward, the amount of forward bending will be limited if the sacro-iliac joints be at fault. This motion is made by the hips and spine up to the point where the hamstring muscles become

tense, then it is made by the sacro-iliac joints, hips and spine. When the hamstring muscles become tight and strain is put on the irritable sacro-iliac articulations, the spinal muscles are thrown into reflex contraction and the motion is limited.

The way in which to determine whether this forward limitation of motion is due to the synchondroses or to the spine, is to relieve the tension on the hamstring muscles by permitting the patient to sit, when forward bending will be much freer.

When forward bending is limited, lateral bending is likewise affected, and since one side is usually more affected than the other, a difference will exist between the amount of bending toward the two sides. In standing there will often be a marked lateral deviation of the body away from the affected side. Since the hamstring muscles play no part in lateral bending, no difference is noted whether the patient assumes the sitting or standing posture.

Backward bending is usually very guarded, and cases where the body is thrown forward and held in that position backward bending is, of course, impossible.

These tests can also be carried out under conditions in which the sacro-iliac joints do not carry the body weight. To accomplish this, the patient lies on his back. Instead of forward bending, the legs are raised, the knees being held stiff. For lateral bending the legs are abducted, and for backward bending, the patient lies on the face and the legs are hyperextended. With the patient lying on the back and with the knee bent, all normal motions will be unlimited and painless unless the joint be very sensitive or unless extremes of motions be carried out; outward rotation and abduction are then usually painful.

If only one joint be involved, straight leg raising will be limited on both sides, though naturally not so much so on the unaffected side. Pain will also be referred to the affected side, no matter which side is raised. The explanation of this is that when the leg on the unaffected side is raised, the hamstring muscles become tense and move the ilium on that side, naturally the sacrum is carried with it, and consequently we have motion also on the affected side.

Pain.—With the exception of limitation of motion, pain is the most important diagnostic symptom in this malady. Pain may be referred directly to the sacro-iliac joints, but more often to the sacral region, also to the leg and foot. The pain which is referred to the leg and foot may be localized in definite areas. In these cases, pressure over the nerve course elicits no pain, a differential diagnostic point from neuritis.

The pain present is usually worse at night,

dependent upon the increased strain which results from recumbency, and is also made worse by any motion or position which increases strain.

In the case of children, the pain most usually takes the form of legache or backache. While it may be present during the day, it is almost always present at night, and is frequently mistaken for so-called growing pains, and sometimes confused with the night cries of tuberculous hip disease.

Swelling.—There is rarely ever swelling in sacro-iliac lesions unless we have to deal with toxic inflammations, tuberculous and non-tuberculous infections.

Abnormal Motility of the synchondroses is present in many cases of sacro-iliac disease, due to long continued strain. This increased motion is discoverable by several tests, namely, by forced hyperextension of the thighs one at a time, moving the ilium on the sacrum; with the patient standing, hold one hand over the sacrum and grasp the pubic bones with the thumb and forefinger of the other hand, the legs are then raised one at a time. Again, by grasping the iliac crests with the fingers and holding the thumbs over the sacro-iliac joints, and having each leg raised separately. Still another, by having the patient lie on the back, placing one hand over the synchondroses, the patient raising the legs one at a time.

While there may be actual abnormal motility in the synchondroses proper, motions which increase the strain upon the ligaments of these joints may be strictly limited.

Attitudes.—On standing the lumbar curve will be obliterated if the sacrum is displaced backward, the reverse being true if sacral displacement is forward. The whole body is often thrown forward. The body is usually inclined away from the diseased joint. When rising from the recumbent to the upright position, the spine is held rigid and the hands often used for support. Flexion of the trunk is avoided. Walking is guarded if the condition be acute, and a long step is impossible, due to spasm of the hamstring muscles. If much instability is present, a rolling or waddling gait is seen. In lifting weights or stair climbing the hands are often used for support.

Treatment.—When in the synchondroses either acute or chronic strain exists, naturally the first indication is to relieve this strain and correct conditions which are instrumental in its production. Long standing should be avoided, and in standing the correct attitude should always be maintained. When sitting, lounging should not be indulged in, and when recumbent a firm

pillow should be placed under the hollow of the back to prevent the lumbar spine from sagging.

In many cases simply relieving the attitude of strain will relieve the strain and nothing else will be needed. But in others, while this relieves, it does not cure, and mechanical apparatus must be devised for the support of the joints. Adhesive plaster straps across the lower back and buttocks, or belts so applied as to support the sacro-iliac joints, combined with a low corset to correct lumbar flexion, will suffice in some cases, but in others plaster-of-Paris casts are necessary and more complicated forms of apparatus will have to be devised.

In some cases where the symptoms are due to joint strain, mechanical support will only be palliative. Muscular and ligamentous weakness are the fundamental ætiologic factors, for the correction of which, massage, stimulating baths, and special exercises are required.

When sacral displacement is present, the upper part of the bone is most usually pushed backward and rarely, apparently, downwards. In this condition the bone can almost always be replaced by hyperextending the spine, or by placing the patient upon the back and raising the leg with the knee straight.

A procedure recommended by Goldthwait is "to have the patient lie face downward with the thighs and legs supported upon one table and the head and shoulders upon another, the body hanging entirely unsupported between. The plaster jacket may be applied in this position."

In other cases of subluxation in order to produce complete muscular relaxation, an anæsthetic is necessary, and oftentimes more definite pressure is required directly on the sacrum.

In the forward subluxations, flexion of the spine and hyperextension of the thighs is the correct manipulatory procedure. In some cases it will be necessary to manipulate the ilium on the sacrum. In cases where extreme relaxation is present, recumbency in a plaster jacket will be required.

Recent injury requires the same treatment as strain except that recumbency will often be indicated. Later the patient may be allowed up as the symptoms or judgment dictate. In this type of cases some form of apparatus will have to be worn for several months, followed by massage, exercise, baths, electricity, etc. In cases of strain and subluxation, some form of apparatus should be worn for about three months, followed by the above mentioned methods of strengthening muscular and ligamentous support.

In women a broad belt of webbing at-

tached to the base of the corset and strengthened by steels is very efficient. Woven elastic trunks, fitted about the thighs and buttocks, often prove satisfactory. In stout women the Osgood brace is very efficacious.

A firm pillow under the lumbar spine or some form of apparatus will usually have to be worn at night, as during recumbency the pain is often great.

The fact to which the writers particularly desire to call attention is that toxic inflammation due to excessive intestinal putrefaction may be superimposed upon any of the conditions of the sacro-iliac joints herein described, and in order for a cure to be effected appropriate treatment must be accorded the disturbed digestive function as well as the diseased joints.

The prognosis is good if treatment be extended over a sufficiently long period of time.

A Plea for the Crippled Children.

By Karl Osterhaus, M. D., Norfolk, Va.

It is a strange but incontrovertible fact that in spite of the large amounts donated yearly to hospitals and sanatoriums, little provision is made for the treatment of orthopædic cases, and particularly those distressing cases of joint tuberculosis so frequently seen everywhere. In only the larger cities are there special institutions for these little sufferers, than whom none are more deserving of pity, but in general hospitals in the smaller towns it is almost impossible to obtain proper attention for them. In fact the surgeon is rather given to understand that these "chronic cases" are not wanted in most general institutions, as entailing too much care on the part of the nurses and attendants. Of course this does not apply to patients able to pay for special nursing and apparatus, but to the class generally designated as "ward-patients."

And yet why should this be true? There is no doubt that some of these cases require a long course of hospital treatment, and few general hospitals care to have their beds occupied by chronic cases, claiming that it tends to "stagnate the service." But is it not also true that were the hospitals properly equipped for handling these cases, and the same care exercised towards them as towards the more exciting acute cases, they would require very little longer treatment in a hospital in the majority of instances than the acute cases. Take for instance a case of acute hip disease or Pott's disease. Under proper conditions of thorough fixation, traction and protection, the three cardinal principles underlying the treatment of all cases of tubercular joint disease, the acute symptoms will usually disappear in from six weeks to two months, and the pa-

tient will be ready for the institution of the ambulatory treatment which can be carried out at home. Is two months very much longer than is required in the proper treatment of the average case of typhoid fever?

It is also claimed that these cases require so much attention that it is almost impossible to spare the time to care for them. As a matter of fact these children require much less care on the part of the nurses after they have been fixed up for the day than the average ward patient. It probably takes a little more time in the morning to bathe and straighten them up, but after that there is little else to do for them the rest of the day. Medication plays a small part in the treatment, so that aside from seeing that the apparatus is properly adjusted and remains so there is very little for the attendants to do.

To those of us who are constantly associated with crippled or deformed children it is hard to understand the manifest objection of the hospitals to receiving this class of cases. Any one who has ever been thrown with these little victims of insidious and maiming disease can testify that no one could be more patient or uncomplaining than these children, doomed to go through life with shortened or shrivelled limbs, or crooked backs. For them none of the pleasures of other children, but they must always sit and look on with wistful eyes at the games and pastimes of their comrades, or what is still more pitiful, attempt to join in, handicapped by crutch or brace. And yet rare indeed is a complaining word from them. Rather are they always bright and cheerful, brighter in many instances than others of their age, who are blessed with health and soundness of limb. Their wants are few, and seldom do they seem other than contented and happy. And yet these are the unwelcome guests of the hospitals; these little men and women whose cheerfulness under suffering should be an example to many an older person, and who are rather bright spots in a ward than troubles.

One ward in a hospital, devoted to the treatment of orthopædic cases, and especially tubercular bone diseases, would be productive of inestimable good, and would entail little extra expense on the institution. The appliances, such as bed-frames, weights, and extension apparatus, which are absolutely indispensable for the thorough treatment of these conditions, cost very little comparatively and seldom have to be renewed. It is almost impossible to properly treat these poor children at home, as in the majority of instances the parents are unable to afford even the small cost of the necessary supplies. In addition it is hard to impress on this class of people the import-

ance of the therapeutic measures used, and they are often unable to spare the time for them.

The writer wishes that he could impress on the public at large the importance and necessity of providing places where these unfortunate children could be properly cared for. Undoubtedly the number of cripples seen in the streets of every city today is largely due to the attitude of the general hospitals towards receiving them. Let us hope that the day is not far distant when every hospital will be equipped to receive and properly care for these little unfortunates, so that in later life their burden may be in some degree lightened.

Treatment of Summer Diarrhea in Infants.†

By McGuire Newton, M.D., Richmond, Va., Professor of Pediatrics, University College of Medicine; Associate Pediatricist to the Virginia Hospital; Visiting Physician City Hospital.

In accepting the assignment of the subject, *The Treatment of Summer Diarrhea in Infants*, I take it that it was the intention of the committee on program that I should discuss the treatment of the infectious diarrhea of infants which prevail during the summer months, irrespective of whether they belong to that class in which there are symptoms of intoxication of varying intensity, with little or no evidence of pathological change, or to that class in which the symptoms indicative of decided pathological lesions predominate over all others, rather than confine myself to simple gastro-enteritis which has for its synonym summer diarrhea of infants.

Unfortunately, I cannot bring to your attention any new or original method of treatment, but this inability is no reason for neglecting a subject of such importance. On the contrary, it is my opinion that we should devote one meeting each year to its free discussion, in order that each of us may have the opportunity of learning from the experience of the others. Consequently, with the hope of provoking free discussion, I will follow the plan of the leading text books and present separately the *prophylactic* and *hygienic*, *dietetic*, *medicinal* and *local* measures of treatment.

The *prophylaxis* consists principally in a campaign of education which has for its object the education of the public in four fundamentals: (1) That all communities should enact and enforce laws providing for cleanliness in the production and handling of milk, and making it compulsory that all milk should be immediately cooled

to 50 degrees F. or below, and kept so until delivered to the customer. (2) That the consumer should make every effort to keep the milk clean and cold in the home. (3) That the power of resistance of infants is impaired by improper feeding, whether improper on account of irregularity or carelessness or on account of the use of foods which either overtax the digestive organs, or do not supply sufficient nourishment for the growing child. (4) That to all children strong enough to maintain normal temperature, the use of blankets and unnecessary flannels during the summer months is irksome, and consequently detrimental to health. Therefore, these articles should be dispensed with at this time, and every effort made to keep the children as cool as possible.

I am unable to appreciate the wisdom of sending infants from the comforts of home to cramped, uncomfortable quarters in the country with the idea of preventing diarrhea; and particularly so when at home they are able to secure an abundance of clean milk produced under the surveillance of the health authorities; while in the country a smile of derision is oftentimes the reward for any suggestion that milk could possibly be a cause of disease.

For delicate infants more benefit is to be expected from a change of scene and climate than for those of maturer years. But so long as the average farmer does not seem to realize what constitutes dirty milk and the part played by it as a cause of illness among infants, I do not think we are justified in indiscriminately ordering delicate infants to the country without first receiving assurance that more than ordinary care is to be taken in milking and in the handling of the milk.

The *hygienic* treatment consists in the use of a daily sanitary bath, and of measures to keep the patient as cool and as comfortable as possible; an abundance of fresh air; the frequent disinfection of the attendant's hands to prevent reinfection; and the prompt disinfection of soiled napkins.

In the *dietetic* treatment, the authorities are unanimous in advising that with the first symptoms all food containing milk be withdrawn, and in its place plain water, albumin water or barley water be substituted.

Here arises one of the most important questions in our treatment, which is, how long should these rest foods be continued? In the breast-fed, our authorities advise that the infant be put to the breast in 24 or 36 hours; while in the bottle-fed, who are less able to stand a long continued withdrawal of nourishment, we are told to withhold all milk until the stools approach nor-

†Read before the Richmond Academy of Medicine and Surgery, July 22, 1908.

mal in color, consistency and frequency, owing to the danger of reinfection from the bacteria present in the intestinal tract, which find in milk an excellent culture medium; but they fail to tell us why cow's milk, properly modified, acts as a better culture medium in the intestinal tract than woman's milk.

While I am not to be understood as proposing to irritate an already irritated, if not inflamed, gut with the tough curd of cow's milk, I do think we should constantly bear in mind the far reaching effect of the rapid waste resulting from the depleting diarrhea and continued high temperature, and endeavor to combat it as soon as possible, by the administration of food of the highest nutritive value compatible with the capacity of the crippled digestive organs.

With this end in view my routine plan is to use barley water or albumin water for three days, varying from one to the other according to the condition of the stools; for instance, if they are offensive, indicating proteid decomposition, barley water is used; if they are sour and excoriate the buttocks owing to acidity resulting from carbohydrate fermentation, albumin water is given.

On the fourth day, the use of whey, to which milk sugar has been added in the proportion of one-half teaspoonful to an ounce, is begun. For a day or two this is given at every other feeding, after which the albumin water or barley water is withdrawn entirely. If the milk from which it is prepared is from a suspicious source, the whey is sterilized. If the stools show lumps of fat which dissolve on the addition of ether, the whey is made from skim-milk. If the stools show curds or lumps on which the ether has no effect, the whey is peptonized.

With evidence of improvement in the digestion, peptonized skim-milk to which milk-sugar is added, in the proportion of one-half teaspoonful to the ounce, is given in place of the whey. The use of skim-milk for peptonization is particularly emphasized, inasmuch as this process has no effect on fat, and as the presence of the fat interferes with the gastric digestion on which we have to depend while the intestinal tract is the seat of disease. With continued improvement, peptonized whole milk is gradually substituted and the degree of peptonization gradually reduced. The peptonizing tubes carried in stock by all druggists are to be used for peptonization of whey or skim-milk; and the process is the same as for the peptonization of whole milk, with the exception that no water is added.

The interval between feedings is never less than three hours; the amount of each feeding is not more than two-thirds of the

quantity given when in health, and the degree of dilution is greater than for well infants of corresponding age. Between the feedings, water is frequently administered.

By following this plan, I believe that milk mixtures sufficiently strong to meet the demands of the patient can be safely given far sooner than if we follow closely the writings of the authorities, with the result that the convalescence will be hastened and the dangers of malnutrition and marasmus lessened.

In our *medical treatment* the remedies of most value are calomel, castor oil, bismuth, opium and alcohol. If there is a tendency to nausea or vomiting, it is well to begin treatment by washing out the stomach, and then administering one or two grains of calomel, which is to be followed in six hours by one or two drachms of castor oil. If, on the other hand, there is no irritability of the stomach, the dose of oil should be administered immediately, to be followed in an hour or two by a dose of calomel, which is followed in six hours by a second dose of oil. In this way, the evacuation of the bowels is hastened and the efficiency of the calomel increased.

I don't believe that there is any plan more universally followed by physicians than the administration of the initial dose of calomel and castor oil in these cases, but, unfortunately, a large number fail to recognize the indications for a repetition of them, which are frequently present. These indications are manifested by a continuation or recurrence of offensive stools; or by evidence of inactivity of the small bowel with retention and decomposition of its contents, followed by absorption and the resulting symptoms of intoxication, such as increasing or continued high temperature and nervous symptoms which often simulate those of meningitis; the absence of bismuth in the stools when this drug has been administered; or the presence of abdominal distension which is not relieved by irrigation of the colon, are often the first signs of this intestinal inactivity. I am convinced that calomel or castor oil will render us far greater service in this condition than any other drug or combination of drugs, provided they are given sufficiently early and repeated often enough.

Of the drugs administered with the view of reducing the number of stools, bismuth subnitrate takes the lead. Its value is due to the fact that it possesses astringent, sedative and antiseptic properties. But to be of service it has to be given in doses of sufficient size, never less than ten grains every three hours to the youngest infant. The size of the dose is best regulated by our ability to give it. At present, I am pre-

scribing it in powders and directing the nurse to mix it with a small quantity of water in a teaspoon, from which it is pushed into the child's mouth by means of the finger, rather than trying to suspend it in vehicles which are most efficient in distressing the stomach.

In those cases accompanied by large fluid stools, two to four drachms of bismuth may be suspended in from two to four ounces of this starch water and injected into the colon immediately after irrigation.

In the consideration of opium it is best to begin by mentioning the contraindications to its use, which are: It should not be given before the intestines have been emptied by means of purgation and colonic irrigation; it should not be given when the number of stools is small, i.e., four or five in twenty-four hours; it should not be given when cerebral symptoms and high temperature exists with scanty stools. The indications for its use are to relieve pain and check excessive peristalsis. It is particularly valuable when there are large fluid stools attended by symptoms of collapse, as in the severe forms of intoxication commonly known as cholera infantum; and during convalescence, when with little if any fever, there is a continuance of the intestinal irritability resulting in the stimulation of peristalsis and a consequent stool whenever anything is put in the stomach.

Regarding its administration, it should never enter into a composite prescription for the reason that it is often desirable to increase or decrease the size of the dose, or withdraw it entirely, without interfering with the other medication. Enough should be given to produce the desired effect; the interval between the doses should not be too short; and it should be discontinued as soon as possible. The preparation should vary with the indication, as when there is pain throughout the abdomen with frequent stools of some consistency, paregoric in doses of from five to twenty drops is to be used; when the pain is due to rectal tenesmus, the best result is to be obtained from the use of the old laudanum and starch water enema, made by adding from two to four drops of laudanum to an ounce of starch water. When the stools are frequent, large and fluid and associated with symptoms of collapse, as seen in the severe forms of intoxication, morphine, in doses varying from one one-hundredth to one-sixtieth of a grain should be administered subcutaneously. In those cases in which excessively frequent, large, fluid stools are associated with high temperature and severe nervous symptoms, there should be no hesitancy in administering morphine hypodermatically, provided a sufficient dose of castor oil is

given at the same time.

In many of the mild cases there is no need for the use of stimulants, but in all cases of long duration they will be necessary. Under these circumstances alcohol is to be preferred. The indications for its use may be stated as cold extremities, weak pulse, and other evidences of prostration whenever they may occur. Of the alcohols, brandy is the most serviceable, four to six drachms being administered to a child one year of age during twenty-four hours. The quantity to be used during the day had better be diluted with from six to eight parts of water, and small quantities of this given at short intervals. In cases of severe intoxication, or when there is sudden depression, brandy should be administered subcutaneously. If an effort is being made to nourish by means of the alcoholic solutions of predigested foods, which are too familiar to all of us, brandy should not be administered as, in all probability, the patient is already receiving more alcohol than is good for him.

Of the *local measures*, the most important are irrigation of the stomach and irrigation of the colon.

Irrigation of the stomach is particularly serviceable in those cases which are ushered in by violent and persistent vomiting. It is very easily accomplished, the apparatus necessary being a small catheter which is connected with a funnel by means of a rubber tube about two feet in length. The catheter is introduced through the nose into the stomach. The normal saline solution is used, the washing being repeated until the solution returns perfectly clear.

The importance of irrigation of the colon is second only to the administration of calomel. By it, any residue of feces or irritating secretions which may have remained in the lower bowels or rectum is removed; and as it stimulates peristalsis, it favors the evacuation of the small bowel. It also stimulates the heart's action and adds to the body an amount of fluid to compensate for the drain resulting from the diarrhea; and it has a soothing effect which is far greater than that following any justifiable medication.

It is indicated in all cases of diarrheal disease. In the milder cases it may not be necessary to repeat it, but in the severe cases it is to be used once a day, if not oftener, until convalescence is well established. When properly done, the effect is often sensational, but disappointment will certainly follow carelessness. For the best results, the physician must personally attend to the irrigation unless he has the assistance of an exceptionally skillful nurse who recognizes when the tube has *not* passed

into the colon. Owing to the difficulty of procuring small rectal tubes, a catheter can be substituted. This should be of sufficient calibre and stiffness to prevent it from kinking. The child should be placed on its back with the buttocks slightly elevated, with the reservoir containing the solution not more than two feet higher than its body. The tip of the catheter is introduced, enough of the fluid to cause the rectum to empty itself is allowed to run; then with the solution flowing to open the way for it, the catheter is slowly passed into the colon or for a distance of twelve inches, care being taken that it does not double up on itself. The irrigation should be continuous until the return flow escaping along the side of the catheter is perfectly clear. Two quarts are usually sufficient, but it may be necessary to use as many gallons.

There are three questions frequently asked concerning the use of colonic irrigation, which are: (1) Should it be used when there is much mucus and blood in the stools? (2) Should it be used when there is much fluid in the stools? (3) What are the contraindications to its use?

If the condition is acute and the stools contain mucus and blood, irrigate, for the reason that retention and decomposition of the mucus and blood irritate the bowel, keep up tenesmus and retard recovery. In this condition, the irrigation should be followed by injecting into the rectum an ounce of starch water containing from two to four drops of laudanum. If acute symptoms have subsided, irrigation should not be used oftener than twice a week, inasmuch as it has a tendency to encourage the production of mucus.

If the stools contain much fluid, irrigate, for the reason that this fluid in the colon irritates the mucous membrane and produces marked pathological lesions similar to those which separate cases of ileo-colitis from intestinal intoxication, and also for the reason that irrigation supplies fluid to overcome the depleting effect of these watery stools. So long as there is much fluid, irrigation should be used twice a day; and after the solution has returned, it is beneficial to inject two to four drachms of bismuth suspended in two to four ounces of starch water.

The only contraindication to the use of irrigation is the inability to secure the necessary apparatus.

I have irrigated a large number of cases, and so far have never had occasion to regret it, though frequently the patients were so ill that I considered it the part of prudence to inform the parents that death might occur during the treatment. In all of my cases improvement has followed, but, of

course, in some this was only temporary.

In choosing a solution, the normal saline offers the greatest service during the acute stages. If after the acute symptoms have subsided mucus persists, this should give place to a solution of tannic acid in the proportion of one drachm to the pint.

The temperature of the solution varies with the patient's condition. Ordinarily it should be about 100 degrees F.; if there is subnormal temperature, it should be about 110 degrees F.; if there is much fever, it may be as low as 80 degrees F., or lower.

The other local measures of treatment are the application of heat and counter-irritation to the abdomen for their soothing effect; the use of cold for its antipyretic effect; and the application of heat or mustard when there is depression of the vital forces; but the indications for their use and the results to be expected are similar to those under other circumstances.

The Medical Treatment of the Parturient Patient.

By M. B. Tuller, M. D., Crawford, Ky.

This should begin in the pre-parturient state. The care of the pregnant woman prior to the onset of labor will obviate many difficulties that may beset the path of the accoucheur.

Physical exercise, even hard, continuous work, will not injure her, other things being equal. Indeed her condition will be generally better in the hour of labor than if she were continually sedentary in her habits. Sudden shocks, jars, or frights, or long walks may result disastrously.

The condition of her eliminating organs, the bowels, kidneys, and skin, should be looked after and kept in healthy, active condition.

In my opinion, there are more hard labors in cases that should be normal, and more cases of sepsis resulting from an unclean alimentary canal than from all other causes combined. In fact, I believe it to be a physical impossibility for any pathogenic germ to find effective lodgement in the genitalia, unless one of two conditions prevail, viz: Either a toxin laden blood stream or retained secundines, or possibly retained blood clots. In the former case, the chill may occur during labor, as has occurred in my practice, or it may occur on the 7th or 8th day, as occurred in two cases which came under my observation during the past winter. In the case of retained secundines or clots the chill will probably not occur until the morning of the second day after labor, and all danger will be passed by the fifth day. Even then, in my judgment, the toxic blood stream must be present before any serious lesion can occur. Many phy-

sicians are of the opinion that we are riding the old "hoss," auto-toxemia, too hard, but my opinion is, that we are only beginning to learn that all diseases, the zymotics alone excepted, may have their origin, either immediately or remotely, in auto-toxemia, and even the course of the exceptions may be greatly modified by the recognition of its possible contributing existence.

We are all familiar with the peculiar mental states of the pregnant woman. Her nervous system is either in a state of greater or less tension, or in an equally greater or less state of depression, and if I were to select or be confined to two remedies which would be the most useful throughout the period of gestation, and contribute the most to an easy and successful issue, they would be calomel and strychn. sulph.

Calomel in gr. 1-10 dosage every two or three hours while awake, not only by its antiseptic and tonic effect on the gastro-enteric mucosa, but by its mildly stimulating effect upon the gall bladder, and by its diuretic effect on the kidneys, has served me well, and done much for my patients. Strychnine, by its powerful tonic effect on the nerve centers, preserves the nervous equilibrium as no other remedy will be likely to do. Gr. 1-60 every three, four, or five hours as indicated will prove very serviceable.

From the beginning of the 4th to the 7th month the patient will not be apt to require very close watching, but during the last two months of gestation she should, to do her justice, be seen by the medical attendant at least every two weeks, her condition inquired into, and such remedial measures applied as seem indicated.

During this period is the greatest danger from the absorption of toxic bodies from the intestinal tract. To meet this state we have mercury in some form, the combined sulpho-carbolates of zinc, sodium and calcium, salol, and baptisia.

It is good practice, and by that I mean successful practice, to give two or three times weekly at bedtime a powder or tablet containing from two to five grains of mercury and chalk, followed by a saline in the morning before breakfast, and grs. v-x of the combined sulpho-carbolates every 3-6 hours during the interval. This will keep the alimentary canal clean, and the patient will assimilate her food better, and be in prime order for the ordeal through which she must pass.

Swelling and pallor of the face and legs indicate renal lesion—some of my cases have had a general oedema—and particular care should be taken of the case to prevent the development of eclampsia. I am convinced that the true physiological antidote

to uremic toxemia is calomel, which I give at first in large dosage, grs. x-xv in divided doses, followed by a saline, then gr. 1-5 every two hours until the symptoms become milder, when it is reduced to gr. 1-10. The patient for a few days is put on buttermilk as a diet, nothing else allowed except water; as diuresis is increased and swelling reduces she is allowed sour milk with the cream retained, later it is alternated with sweet milk, and when it has been entirely gone for a week she is allowed soups, light bread, crackers, rice, &c., but no meat nor eggs nor corn bread during the rest of her gestation. One of my cases, after all swelling had disappeared, disobeyed instructions and ate a piece of corn bread, with the result that the oedema returned, and there was no relief, or time for it, until after her confinement, which was accompanied by eclampsia. When elimination is not perfect from the calomel and buttermilk, alkalithia has given me good results. Dr. Waugh recommends the following:

Sod. Acetas.

Chloroform Benz.	aa	3i
Water		3xii

A tablespoonful every 4 hours, and says he has had no convulsions when this is given together with the buttermilk diet.

If convulsions occur, veratrum viride is the remedy of choice, unless the pulse is slow, which contraindicates it, when atropine or gelsemium will be more suitable, the former if the pupil is dilated and the face pale, and the latter if the pupil is normal or contracted and the face flushed. Morphine is recommended by many, but I have never used it. Pilocarpine gr. 1-6 hypodermically is recommended by some, but I have been informed by those using it that, while effective, it predisposes to postpartum hemorrhage.

During labor if the pains are of good quality and there are no abnormal symptoms presenting, the patient needs no medicine at all, until the head rotates well under the arch, and extension has begun, when it is my rule to administer minims xxx of F. E. ergot. The effect of this dose is not perceptible until expulsion has been accomplished, when hemorrhage will be conspicuous by its absence.

I got this hint when I was a young man while relating to an old one my woes about postpartum hemorrhage, of which I had many cases. For twenty-five years I had no case of hemorrhage, and then the first—I was not on hand in time to administer the preventive. Hence I regard it as good practice.

If labor has set in, and the patient is excited and restless, with a nervous dread of the issue, and a fear that she will die, aco-

nite will quiet her nervous system and the pains will become more effective. I usually give m 1 (Phar 90) every half hour to effect. If the pains are spasmodic, coming and going suddenly, without effect, the os rigid, belladonna will correct the trouble, the pains will become normal and the os dilate rapidly. If the patient is nervous and spiteful in temper and complaining that her pains are unendurable, a few drops of chamomile tincture in a few spoonfuls of water, a teaspoonful every five minutes, will soon restore the nervous equilibrium, and labor will move on better. If the os is rigid, the patient complaining of nothing unusual, gelsemium will help dilatation. If the patient is mild spirited and tearful, pulsatilla will help her very much.

In the second stage if the pains are weak and inefficient ergot in 10 or 12 drop doses repeated half hourly will stimulate contraction without injury to either mother or child. I never give it in the first stage and never in large dosage in the second, except as heretofore described. But I give atropine gr. 1-500 every half or three-quarters of an hour, the preference over ergot in the second stage. No drug has the power over uterine contractions that atropine exhibits.

A patient of mine overdue 10 or 12 days lost her amniotic fluid without any contraction whatever. I laid on the table seven atropine tablets, gr. 1-500, and instructed the nurse to give one every half or three-quarters of an hour, and at 11 o'clock retired to sleep. At 3 a. m. I was called, and, in a short time, delivered her of a large boy. Atropine has given me satisfaction. I do not use quinine now. In every case where I previously employed it I was disappointed.

If postpartum hemorrhage occurs, atropine and ergot are my sheet anchors. Either will contract the uterus, as a rule, and hemorrhage ceases. Ipecac is an admirable remedy in small doses if the hemorrhage is profuse and the other remedies have failed. I have, however, had to use it but few times. After the hemorrhage a full dose of the red tincture of cinchona or elixir calisaga will speedily restore the patient's equilibrium.

If the placenta is adherent, a rare occurrence in my practice, m ii of belladonna tincture every 5 or 10 minutes until the face flushes or dryness of the mouth is complained of, with firm gripping of the uterus through the abdominal walls will be likely to detach it.

I fully concur with the opinion expressed in the May Journal by Dr. Graham, that postpartum uterine flushing is unnecessary after a normal labor. Too much middle-someness is as bad or worse than insufficient treatment. Except in those cases in

which portions of the placenta may have been left, it is inadvisable. The post-parturient patient needs as near absolute quiet—rest—as she can have.

Milk Sick—and Milksickness.

Dr. J. A. Reagan, Weaverville, N. C.

The thing causing the disease, for want of a better name, is called Milk Sick, the disease, Milk Sickness. Now what is it that causes that sickness? This is easier asked than answered. There has been more time, and scientific labor spent in trying to find out what kind of poison it is, than any other poison known, and yet it goes without any better name.

This poison, whatever it may be, differs from all the known poisons. It may lie quietly in the system for some time without exhibiting any of its toxic powers, until the person or beast is forced to take exercise. It is more ethereal and defusive than any with which I am acquainted. Hence it may be said to be *sui generis*. A Mr. Hall and wife, on Goose Creek, Tenn., died from eating a chicken that had picked some flesh from a cow that died of milksickness. A respectable citizen living on the same creek had put up his hogs in a lot to fatten them; when one of his cows seemed a little sick, he put her in the same lot with his hogs. The cow died and the hogs eat some of her flesh and he lost thirty head of his hogs.

A respectable citizen living some years ago says he has seen as many as seventy dead buzzards around a dead cow, besides several sick, but not dead. These cases shows this poison exceedingly dangerous.

Above Nashville, Tenn., there is a creek in the hills called Goose Creek. On one branch of this creek is a fine range, and a great many head of cattle and mules were turned in for the winter. Dr. Vandell, father of Professor Vandell of Louisville Medical College for many years, says: "One of my neighbors concluded to winter his mules on this point, as the green cane was very abundant, believing that nothing could poison a mule, but to his utter astonishment two or three out of five died."

Captain William Thompson drove his cattle to this knob some years ago for the purpose of wintering them. They seemed to do well during the winter, but in the spring when he started to drive them home thirteen out of twenty died before he got home. I think it best to say that exercise either of man or beast, develops the latent poison in a few hours, hence it is best to exercise all animals intended for food before killing them. I do not deem it neces-

Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C. June, 1908.

sary to enter into a minute discription of places where it is found. As it is only proper to say it is always found, as far as I can learn, in loose, loamy mountain sections where the timber shades the ground.

In 1848, when I first came to North Carolina, there was in the mountains of most of this western range, more or less, Milk Sick found. Now that the country has been cleared up it is a rare thing to hear of a case of Milk Sickness. Dr. Woodfin was an educated physician who practiced mostly in Macon county, I went with him to see a case of milk sickness, and I am certain I never want to see a man suffer as he did. Two stout men were holding him in the bed, but frequently had to call for a third to keep him there. He would have suffered no more if he had been on a bed of hot embers. I never before or since saw a man suffer as he did. There is more credit due the physicians of Nashville, Tenn., than any other place for the work done in seeking the cause of so many deaths of stock and persons. They finally located the place and fenced it in; then stock were turned out without fear, but yet the question as to what is it was not answered. Some said it was a vegetable, others thought it a mineral of some kind, they, in a body, went over the whole enclosure, and every vegetable whose properties were not fully known was sent to Philadelphia to a chemist who analyzed all sent, and his report was short, "No poison in any sent." But this did not satisfy the good men and physicians engaged in trying to find out what killed the stock. They then brought up hay from a farm below, and put it in the enclosure and let remain till after day light, took it out and fed it to a cow with the dew still on it. She died. They skinned her, hung the hide in a barn. The rats eat the pulp and it killed them. The hogs eat the cow, and they died. It is known that a hog is harder to kill with poison than any other animal. Dr. Hardwick told me that when a boy he had to take slop to a sow down with kidney worm, some distance from the house. He said he put a spoonful of arsenic in the slop to kill her. His father told him the next morning to take some food to the sow, but he said "father, she is dead by this time, she was very bad yesterday evening. But his father made him go, and to his astonishment he met her coming to the house. The arsenic cured instead of killing as he expected. But the buzzards eat the hogs, and died. I know of no other poison passing through three animals to kill the buzzards. I do not suppose any thing will eat a buzzard. I regard that it is settled that milk sick is a gas that rises from the ground, and settles on vegetation. What

the gas comes from has not been discovered as yet. Dr. Menthow says the milk sickness has prevailed as far back as 1812. It was then called 'the puking fever,' as all or most all throw up.

Before I close this communication or article, I think it proper to give the most prominent symptoms of this frightful disease. One of the earliest symptoms is a weakness in the calves of the legs and general lassitude after taking any exercise. They sometimes yawn and stretch as if going to have a chill. This is followed by pain in the back and head, and a disagreeable sensation about the stomach, and more or less fever, then then the thirst increases, until it is intolerable. The bowels become constipated and are hard to move, the pulse increases in frequency. The headache is unbearable. The patient rolling from side to side of the bed straining to vomit every few minutes, calling incessantly for water. These are the general symptoms. The treatment then was large doses of calomel, and blisters over the stomach. But I have found the best and surest remedy, is about equal parts of honey and peach brandy mixed, and given as required. With this remedy I have never lost a patient, of course the bowels must be regulated, even if we have to resort to croton oil, but I have never had to do that but once. I have not had a great number of patients, but never lost one. In convalescence care must be taken to have a good nurse that will watch the patient, and not let him hurt himself, if he should become hard to manage. I unfortunately once had an attack by eating a little butter at supper in a section where there, at that time, was a little milk sickness, and singular to say, I felt the symptoms for three years at the same time of the year. Since then I have had no symptom of the disease, and I shall be very thankful if I never have even the shadow of the symptom.

It is found in butter as will as milk, and only one may get it.

Treatment of Ante-Partum Eclampsia.*

By John F. Winn, M. D., Richmond, Va., Professor of Clinical Obstetrics in the University College of Medicine. Obstetrician to the Virginia Hospital, etc.

Of all the pathological conditions of the gestation period, none is commanding greater interest than pregnancy-toxemia, and I am equally certain that nothing is more to be dreaded than an eclamptic seizure occurring several weeks before the expected confinement in a primi-gravida who

*Read by invitation, as a part of a Symposium, before the Southside Medical Association, at Petersburg, Va., March 3, 1908.

has had no prophylactic care. For this reason the condition is doubly appalling, and the prognosis proportionately uncertain. The maternal mortality in ante-partum eclampsia having been shown to be fifty per cent., and the fetal mortality sixty-nine per cent., as against twenty-five per cent. for mother and fetus in the intra-partum variety, no argument is needed to show the necessity for recognizing early the pre-eclamptic state, whose classical symptoms represent only too truly an over-charged circulation with one or more unknown toxins.

At the risk of over-lapping in some degree the subject of prophylaxis assigned to the first paper in this Symposium, I feel that because the eclamptic tendency is proportionate with the advance of pregnancy, I will be excused for further emphasizing the supreme importance of *early, unremitting and systematic* medical supervision of the pregnant woman in accordance with the individual symptoms, and, particularly, the local uterine conditions presented.

Regarding the management of the pre-eclamptic state, if, despite the general hygienic and medical treatment represented by an exclusive milk diet and the systematic stimulation of *all* the eliminative processes, the danger signals are progressively increasing, I am in accord with those who believe that premature labor should be promptly induced, *but only by that method or combination of methods best suited to the case in hand*; some being better adapted to slow, others to more rapid methods of emptying the uterus; and I am reminded to say just here, that the apparent divergence of opinion regarding the choice of methods for the induction of labor is more than likely to be accounted for by the failure to fit the method to the individual conditions of softening or dilatability of the cervical tissues.

I believe, further, it is very important to keep in mind the fact that, in the presence of convulsions, no routine treatment can be followed, but that each case must be managed in accordance with the conditions that confront us. In recent years, I have followed the combined treatment—that combination of procedures, which *seeks to control the convulsions, eliminate the toxins, and hasten the delivery, while the patient is under complete anesthesia, by some rapid method which promises the least injury to the mother*. It is well to bear in mind these indications must be fulfilled as nearly as possible at the same time, and therefore it is very necessary to have several cool-headed assistants, selected from others than the family to do important and varied work under the direction of the man-in-charge, who must

of course, never, for a moment, lose his head.

To control the convulsions: Chloroform, veratrum and chloral, are the most reliable. The chloroform must be given just as the seizure is coming on and be discontinued in the intervals between convulsions. It is useless to administer it while the respiratory muscles are fixed, and it is a mistake to continue the giving of the anesthetic after the convulsion is off, unless efforts are being made to dilate the cervix: the unnecessary use of chloroform only increases the cardiac depression already induced by the toxemia. Undoubtedly many cases have died because of the too lavish use of chloroform. I feel that I am correct in saying that few of us rely on chloroform alone, but every one will agree that it is our most valuable adjunct to other treatment.

My second choice of anti-eclampsics is the Southern remedy, veratrum, especially if the pulse is full and rapid. When given guardedly, 10 to 20 minims of the fluid extract hypodermically for the first dose, followed by 5 or 10 minims every half hour, until the pulse is reduced to 65 or 60, the convulsions will generally be held in check. Up to the present time, I have not seen any untoward effect from veratrum, but should its depressing action go too far, whiskey is a certain antidote. Not only does veratrum control the convulsions, but it acts upon the skin and kidneys, and, in addition, it is claimed to relax the cervical sphincter, an important consideration when hastening delivery.

My usual custom is to administer chloroform for the convulsive attack itself, and when it has subsided start with the veratrum as stated above, unless especially contra-indicated. If the case is a very severe one, I administer 40 to 60 grains of chloral by rectum, or 30 grains by mouth. To be effective it is generally conceded that chloral must be given in large doses. Not only has the chloral treatment the endorsement of the American, but of the French and German obstetricians as well; and when it is remembered that Winkel saved 85 out of 92 cases with large doses of chloral, this remedy must always hold a high place in the treatment of the convulsive stage. About the Morphia treatment I am skeptical, notwithstanding the announcement from Veit that he had treated 60 cases with morphia with only two deaths, the lowest death rate, by the way, from any plan of treatment ever proposed; but up to the present time, the idea impresses itself upon me that morphia must antagonize the eliminative part of the treatment, and for this reason I have never used it.

Elimination: Of the eliminative meas-

ures copious irrigation of the colon with normal saline given through a rectal tube not less than thirty inches long heads the list. This must be thoroughly and systematically carried out. The patient should either lie on the left side or in the dorsal posture with hips well elevated. From four to five gallons should be used, possibly more, taking care that the outflow is not obstructed. A quart of the saline should be left in the colon. This should be repeated every six hours. Of course, the time-honored hydragogue cathartics should be given. Large doses of calomel, 10 to 15 grains followed by sulphate of magnesia are most important in nearly every case, particularly if there be hepatic torpor. In those cases presenting post-eclamptic stupor large quantities of saturated solution of sulphate of magnesia placed high in the colon by the long tube will be followed by excellent results. It is important that the tube shall be placed as high as possible, and that the saturated solution shall be given with a free hand.

To encourage the action of the skin, I prefer the hot-air bath to the hot-back. The objection to the latter is the difficulty of determining whether the moisture on the skin is perspiration or the steam from the wet blanket. The hot air bath can be secured in a few minutes by using an angular section of a stove pipe, the short arm of which being placed over a lamp, the heat is conducted under the bed-clothing, the latter being well pinned down to the bed. Care must be exercised, however, in using hot-air bath, because its prolonged use is depressing. It is well to keep ice to the head while the patient is in the hot air.

The subcutaneous injection of normal salt solution greatly aids free elimination by the skin as well as by the kidneys, and should always be employed; a good site for it is under one or both breasts. It is hardly necessary to say that this must be aseptically done and that care must be taken to see that the long hollow needle goes under and not into the gland, but I have seen this mistake made. If sweating does not follow hypodermoclysis, this method should be used with caution, as it is claimed that the salt solution predisposes to pulmonary edema.

Venesection: In the earlier part of my professional life, I resorted to bleeding more frequently than in later years. Whether this is a delinquency or not, I must confess to a growing mistrust in venesection, for while it is true that some authorities continue to advise it, others resort to it very infrequently or not at all. If, however, there is great plethora, cyanosis, stertorous breathing and, particularly, threatened pul-

monary edema, I believe bleeding is indicated. It is generally admitted that venesection may prevent pulmonary edema, but it is doubtful if it ever cures it.

Pilocarpine I have never used because of its depressing effect on the heart and its great tendency to produce pulmonary edema. It should be universally condemned. Finally, among therapeutic agents, oxygen is a most excellent adjuvant, both as an eliminant and a stimulant, especially in post-eclamptic stupor, and when available a tank should be provided for this emergency.

INDICATIONS FOR METHODS OF EMPTYING THE UTERUS.

During pregnancy, if, despite the most diligent eliminative treatment, the urinary findings and the subjective symptoms show that the toxemia is progressively increasing, there remains but one thing to do—empty the uterus. If labor has not already set in, and there is no special reason for haste, a slow method is unquestionably the one to be selected; one least likely to increase reflex excitability and thereby precipitate a convulsion. The method which has served me best under these circumstances is the bougie or a No. 20 F., soft rubber catheter. While this is a safe method it is uncertain, for while uterine contraction may set up in a few hours, it often happens that a second or even a third catheter has to be introduced. I have had occasion to employ it a number of times, however, and, when reinforced by a cervical gauze tampon, packed closely into the cervical canal and also well around the cervix, it has rarely failed of result.

When, however the toxemia has progressed in the ante-partum condition to the *point of convulsions*, and labor pains, however slight are being excited by the attack, the gravity of the situation then demands that *premature delivery shall be hastened by a rapid and the same time a safe method, while the patient is under anesthesia*. It is extremely fortuitous if the pains are increasing for this is evidence that Nature requires that the pregnancy shall be interrupted, and that she is doing her best to accomplish that end. As a rule, the pains increase in force in proportion to the severity and frequency of the convulsions, thereby producing a softness of the cervix that will admit of a partial dilatation of the greatest obstacle to delivery, the internal os. This is the time when veratrum is so valuable for the reason mentioned above, viz.: its property to soften and relax the cervical rings. If, under these conditions, it is possible to introduce the smallest Voorhees' rubber bag, it should now be done, and by

means of it complete the dilation of the cervical canal and external os to a size that will admit the index fingers of both hands until full dilatation has been accomplished. If it should be found that Nature has already dilated the cervical canal and that the external os alone remains to be opened, the situation is the more fortunate, because the bi-manual dilatation can be started at once without the preliminary use of the Voorhees' hydrostatic bag. Assuming that dilatation has now been completed by the bi-manual method and that the time has now arrived for the extraction of the child, the choice of method of extraction will depend upon the following conditions: if the head is low down in the pelvis, apply the forceps; if the head is high and particularly if movable above the superior strait, delivery should be completed by version.

There are times, however, when even a more complicated condition exists than the one just mentioned, and when it may be very difficult to decide what is the best course to pursue. I refer to those cases (and worse still if they are primiparæ), which are seized with *convulsions several weeks before the expected confinement, and which present a closed cervical canal with a cervix, but little, if at all, shortened, and which show no signs of uterine contraction.* Here the need for rapid evacuation of the uterus would seem to be supreme and, yet, any attempt at forcible dilatation, whether by parallel steel dilators, or by any type of the Bossi instrument, of a cervix whose supra-vaginal portion has not yet dilated, would undoubtedly expose the patient to the certain danger of extensive uterine rupture, serious hemorrhage and possibly death.

¶ The obstetric treatment under these circumstances depends in large degree upon the patient's environment. If in a hospital, the trend of modern opinion leans to the deep cervical incisions carried up to the vaginal vault, first proposed by Dührssen, or, what is believed to be better, his elaborated operation, the vaginal Cæsarean section. If in the patient's home, however, these operations, and especially the latter, should not be attempted, particularly in the absence of competent assistants and the necessary accessories. Stated broadly, the treatment best adapted to the home of the patient for convulsions unattended by labor pains and in presence of a closed cervical canal, several weeks before term is the Voorhees' hydrostatic bag in graduated sizes, if the cervix can be dilated enough to permit of its introduction. Otherwise, one is forced to rely on therapeutic measures, a cool head and discriminating judgment for the management of the case. Much has

been written in advocacy of the Bossi dilator, which by a few obstetricians is believed to be especially adapted for just this class of cases, but the more conservative obstetricians of this country are so much opposed to rapid delivery in a closed cervix that Bossi's dilator and all other methods of forcible delivery are very properly ruled out. The same statement can be applied to the classical Cæsarean section proposed as far back as 1888, for this variety of eclampsia. All that need be said about this operation is that it has not been favorably received nor is it likely to be as long as it is followed by the high mortality rate of 36.25 per cent.

FUNDAMENTAL PRINCIPLES OF DILATATION.

Reverting to the second classification, viz.: convulsions accompanied by partial dilatation of the cervix—it is for these that bi-manual dilatation finds its widest range of application and I would lay special stress upon the fundamental principles upon which its success so largely depends:

1. Under no circumstances should extraction be attempted until the internal os has been completely dilated, and when full dilatation has been secured, continue your efforts a few moments longer to produce complete relaxation of the cervical ring before extracting the fetus. The failure to observe this injunction incurs the most imminent risk of rupture of the lower uterine segment, as well as the death of the child.

2. It is equally essential for success that dilatation shall be gradually and slowly performed. Any attempt to score a record for a complete dilatation in a specified time, as in "one hour" or less time, where there is no preliminary softening or relaxation of the cervix should be condemned.

3. Suspend all work at dilatation when the cervix contracts around your finger, resuming efforts when the cervical ring begins to relax.

4. Imitate always Nature's method by pulling somewhat downward while at the same time pulling at right angles to the cervical axis.

5. Be sure that the fingers are carried well up within the internal os, remembering that the natural method starts with dilatation of the internal and stronger ring. For this reason any attempt at dilatation beginning with the external os and ending with the internal ring is to be avoided.

Technique of Bi-Manual Dilatation.—When practicing bi-manual dilatation after the method proposed by Bonnaire and popularized by Edgar, the operator stands to the patient's left side and, with the right hand carried over the pubis, the forefinger is introduced in a manner that necessitates ex-

treme flexion at the wrist, the operator's body bending greatly to his left side. I have found this posture extremely awkward and tiresome; and, furthermore, with the wrist in complete flexion one has little power to make the traction needed; consequently, I am in the habit of standing or sitting directly in *front* of the patient, making traction straight from the shoulder with one forefinger in supination and the other in pronation. One has but to try both ways to find the latter much the easier of the two. To be more explicit: With the right index finger in the position of supination, traction is made upward behind the symphysis. The tip of the left forefinger is next introduced while in pronation; the backs of the fingers being in relation with each other, traction being made in opposite directions. While continuing this pressure, change frequently the point of contact, and, necessarily, the direction of traction; antero-posteriorly, laterally, and obliquely, taking care that all parts of the ring shall, in their turn, be acted upon. The point to bear in mind is that the pressure is continuous and is gently and evenly distributed. When dilatation is thought to be complete, continue the pressure steadily a little while longer until the fingers impinge on the walls of the pelvis and thus produce that full relaxation and paralysis of the ring already referred to above, and which is acknowledged to be so essential for successful delivery.

114 N. Fifth Street.

Surgery of the Stomach.†

By H. G. Nicholson, M.D., Charleston, W. Va.

I might say that until about seven years ago surgery of the stomach was limited to malignant disease, benign stenosis of the pylorus, and some acute secondary manifestations; and only since that time has the field been invaded for the relief of pain in unhealed ulcers, for underfeeding, and the chronic disability so often accompanying the disease.

Kocher, Korte, W. J. Mayo, Mayo Robson and Czerny all advise operation in painful conditions and in small frequent hemorrhages. Czerny especially mentions extraordinary benefit in recent ulcers of the stomach; and from the fact that ulcers so often fail to heal, from their natural tendency to become malignant; and even after healing the tendency of the glands and the old cicatrix to become malignant; I must say that we do not sufficiently recognize ulcer of the stomach as a surgical disease. W. J. Mayo reports ninety per cent. of his

cases for simple ulcer of the stomach and duodenum as cured; a result we cannot expect when treated medicinally. Hauser, Heitler and Kocher have noticed the tendency of old cicatrices to become malignant, and unciatrized ulcers especially show this development.

It must be remembered that whenever the alimentary canal is opened, septic influences must be combatted, inasmuch as under normal conditions the gastro-intestinal canal harbors a great number, and a great variety of bacteria. For this reason we must avoid the risk of infection by the use of abdominal sponges and the use of properly placed clamps.

The method of suturing is fully described in most of the works on surgery; and generally speaking consists in first approximating, through all the coats, at the same time inverting so as to bring peritoneal coat against peritoneal coat, preferably using a chromic catgut suture and reinforcing with a silk or linen suture through the serous coat alone. The sutures must be placed in such a way that the blood supply to the parts is free, and in that way healing is much facilitated; this can be done by feeling for pulsation in the mesentery. Clamps should be removed as soon as the through and through sutures are in and before the serous sutures are begun; in this way avoiding as much as possible contusion of the parts. If at any point there seems the slightest likelihood of leakage reinforce with a mattress suture.

Indications for Operation.

Gastrotomy and Gastrostomy is indicated for removal of foreign bodies, treatment of œsophageal stricture or for the formation of a permanent opening through which to nourish the patient in malignant disease or undilatable stenosis of the œsophagus.

Gastro-enterostomy.—Simple ulcer and its effects are the principal indications, but it is also done in infantile hypertrophic stenosis of the pylorus, for dilated stomach, for hour glass contraction, and in some cases of malignant disease; although in the latter partial or complete gastrectomy is preferable. The operation may be done either after Hacker's posterior or Wolfer's anterior method.

Kocher, Hahn, Socin, Lucke, Rockwitz, Bergman, Mickulicz and others operate by the anterior method, while Mayo, Maynihan, Roux, Robson and others operate by the posterior. With such eminent men on either side I will not undertake to say which is preferable, but would advise that method which would seem to offer most complete drainage.

McGraw's elastic ligature, the Murphy button and decalcified bone bobbins are

†Read before Kanawha Medical Society, Charleston, W. Va., April, 1908.

also used in making the union, but are not so good as the method of suture.

Gastroplication, an operation for reducing the size of the dilated stomach by making one or more longitudinal folds or tucks, was first done by Bircher in 1891, and has since been performed a number of times. The operation is, of course, useless unless the pylorus is patulous, or unless such other operative work as may be indicated is done at the same time.

Gastropexy for enteroptosis is done in several ways. The methods of Duret, Beyea and Coffey all offer practically the same results.

Pylorectomy or partial gastrectomy is principally indicated in malignant disease or in ulcer that can be completely excised. If the latter is done be sure that it is the only ulcer present. It is also sometimes performed for non-malignant stenosis of the pylorus. The original operation of end to end anastomosis has been largely superseded by complete closure of the divided ends and a gastro-enterostomy then performed. In doing the operation the following facts must be borne in mind: Give as little anæsthetic as possible and avoid shock. Remove all the growth, irrespective of trying to follow any special method and join the parts (as in all intestinal work) in such a way that there is no tension on the stitches; and thus avoid leakage and sepsis.

It is also important that in ligating the gastro-duodenal vessel and the gastro-colic omentum that the structures be raised away from the middle colic artery which runs immediately beneath in the transverse mesocolon. Failure to take this precaution may lead to gangrene of the transverse colon.

Total gastrectomy is performed in those cases where the stomach is widely infiltrated with malignancy, but with few adhesions and little or no extension to the surrounding lymphatics. Comor, of Cincinnati, first attempted the operation in 1883, but lost his patient on the table. Schlatter, of Zurich, first performed the operation successfully in 1897. Patterson collected twenty-seven cases for malignant disease, seventeen of which recovered; a surprisingly good result when the extent and severity of the operation is considered. The average duration of life in five of the above cases was nineteen months, two were lost sight of, and of the others who are alive one was operated on by Brooks Bingham eight years ago and one by Macdonald seven years since. Patterson also collected twenty cases of the sub-total gastrectomy. Of these patients seven are now dead. The average duration of their survival being twenty-two and one-half months; five died from recurrence, one from heart disease

eleven years after the operation, and one from intestinal obstruction without any recurrence. Of the remaining six patients one was alive five and one-half years after the operation, and one three and one half years after the operation.

If the parts are difficult of suture the Murphy button or the bone bobbin may be used for the anastomosis. W. J. Mayo reports twelve cases of resection without a death.

Reference: Kocher, Jacobson and Rowlands, Mayo's reprints.

A Detail in Treating the Appendicular Stump.

By H. Stuart MacLean, M.D., Richmond, Va.,
Professor of Pathology University College of
Medicine; Surgeon to Virginia Hospital,
City Hospital, etc.

There has been so much said recently regarding the various methods for treating the stump of the appendix that I am prompted to record the method which I have used for several years in all cases where the condition of the bowel and of the patient have allowed of invagination or inversion of the appendix.

The difficulties upon which so much stress have been laid are: (1) leaving a raw or infected surface in the abdominal cavity or buried in the peritoneal wall of the bowel, as is the case where simple ligation or any other method than inversion is practiced; (2) hemorrhage in cases where the stump of the appendix has been invaginated.

The method which I have followed for several years and which has been attended with uniform success, so far as the treatment of the stump is concerned, has always been invagination, as follows: The mesentery is first ligated, either with linen or catgut. The purse-string suture is then passed around the base of the appendix in the following manner: It begins at a point opposite the mesenteric attachment of the appendix. When it has reached the opposite side, the needle is passed deeply into the substance of the appendix so as to go beneath the appendicular artery. The stitch is brought back and again passed in the same way under the appendicular artery. In this way the appendicular artery is entirely included in a loop in the purse-string. The rest of the purse-string suture is then completed, the appendix cut off and the stump crushed above the suture and invaginated and the purse-string suture tied.

It will be noticed that when these steps are completed, the ligature on the mesenteric and the ends of the purse-string suture are as far removed from each other as they could well be, under the circumstances, by

reason of the manner of their application, so that the stump of the mesentery can be turned over against the depression made by the purse-string suture and lightly held there by tying the ends of the suture and the ligature. This reinforces the purse-string suture and is all that I have found necessary for a sure and successful closure of the appendicular opening.

When I first began to use this method, I was in the habit of reinforcing the purse-string with some Lembert suture, but I have long since abandoned that and rely simply upon the additional reinforcement of the stump of the mesentery. I have never had a case of hemorrhage or of failure to hold after using this method. The complete turn taken around the appendicular artery is essential in this method, and I believe is well worth consideration.

Tuberculin Therapy.†

By C. S. Grayson, M. D., High Point, N. C.

Mr. President and Members of the North Carolina Medical Society:

It is an established fact that one-seventh of all deaths are caused by tuberculosis. It has been estimated that nine-tenths of all persons living in this country contract the disease at some time in one or more of its various forms.

To digress, if we consider the matter from a purely scientific standpoint we are forced to admit that at the present day the tubercle bacillus is the greatest factor in nature's great improvement scheme, "The survival of the fittest." Tuberculosis is a disease from which the weak die. A vigorous man even when he has contracted the disease in a severe form will recover if given at all favorable conditions. They do not contract it unless temporarily debilitated or exposed to numbers of the bacilli.

It is quite certain that the persons saved by eradicating the bacilli would be weaklings. Many of them would be saved for lives of suffering and for the propagation of a still weaker off-spring. We must remember that most of those we would save by eradicating the germ of tuberculosis would be saved for a more lingering and painful death by other disease.

The tubercular patient is notably cheerful and hopeful. It seems that God created the tubercle bacillus for a sifter of His creatures, to sort out and destroy those whose low vitality would render life to them more painful than pleasurable and whose off-spring would still further weaken the race. Were it not for the decided analgesic and

pleasurable effects of tuberculosis these weaklings would be condemned to a life of toil, dyspepsia, chronic catarrhs of the stomach and intestines and a host of other painful and melancholic diseases that have no germ with analgesic properties. Physicians in their desire to save life sometimes forget that death is not the worst evil that may befall a man. Some have gone so far as to say that physicians busy themselves propping up the weak and for that reason are brakes on the wheels of the Almighty.

When these armies of tubercle bacilli invade the tissues of an individual all avenues by which they can be attacked are closed save that one whose gates are good food and God's free air and sunshine, and by these measures, from a scientific point of view, every one is saved that is worth the saving.

The tuberculin treatment is a vaccine treatment. In tuberculosis pure and simple there is no toxemia and therefore tuberculin has no place in the treatment of this disease. To substantiate the above statement we find that the world establishes immunity to widespread diseases in which there is a toxemia. In the early centuries small pox almost depopulated some countries of the old world. By the use of Jenner's vaccine and by the prevalence of the disease the world is now immune to such a degree that it is difficult to make a positive diagnosis. The natives of Africa by constant exposure have become immune to the poison produced by malaria. The English and German immigrants, not immune by exposure to this deadly form of malaria, are overwhelmed by the poison and die by the score of black-water fever. Influenza at one time quite a serious disease is now of little consequence. The Indian, living in the forest, exposed to snake venom for centuries has become so immune that he suffers little more than a simple inconvenience from the bite of the rattlesnake. Colles in his law states that a non-syphilitic woman who has borne a syphilitic child is herself immune and cannot be infected though she nurse the child.

No where in the study of tuberculosis have we evidences of immunity similar to those just enumerated. Were the tubercle bacillus a toxin-producing organism immunity to those toxins would have been established. On the other hand, leaving out the recent decrease brought about by the open air treatment and better supervision of the general health, tuberculosis has become more prevalent every year.

A tubercular lesion of the skin is termed a lupus. It may make its appearance about the lip and finally destroys it and the neighboring ala nasi. Pulmonary tuberculosis

†Read before the recent meeting of the North Carolina Medical Society at Winston-Salem, N. C., June, 1908.

s simply a lupus of the lung. The tubercle bacilli slowly destroy the lung tissue. This process of destruction goes on until the patient dies for want of sufficient lung tissue to aerate the blood.

The inflammatory processes are greatly favored by the constant respiratory movement. A fractured limb heals more readily when immobilized. Fixation favors healing in pulmonary tuberculosis. It has been found that when tubercular patients are kept at rest in pure open air where the number and depth of respiratory movements are reduced to a minimum, cures are much more readily effected. For that reason active exercise so warmly recommended by the older physicians has been abandoned. It is the local condition and not a toxemia that requires attention and the day may come when if but one lung is affected the corresponding side will be strapped and kept at rest, as in pleurisy, until the lesion is healed.

The symptoms of an uncomplicated case of tuberculosis are insignificant and indefinite. You cannot conceive of a condition where there are bacilli secreting toxins without appreciable symptoms. The symptoms are due to mixed infection and to loss of tissue and not to toxemia. Here are the symptoms of a certain condition copied from Osler. Diagnose the case in your own minds. "There is an elevation of temperature, it is irregular in type, sometimes there is a chill, and the temperature may rise to 103 or higher. Owing to the intermittent character of the fever the disease is often mistaken for malaria. Fever may rise in the afternoon without a chill. Profuse sweating is common, particularly when the patient falls asleep." These are symptoms of abscess of the liver and we conclude that similar symptoms in tuberculosis are due to the presence of pus cocci. Osler says that suppurative processes play an important part in pulmonary tuberculosis, many of the symptoms of which are due to them. Languor and lassitude result from faulty aeration of the blood. The same results are produced by breathing the air of a poorly ventilated room. In tetanus the toxemia is pronounced and the antemortem temperature may reach 110. Even in acute miliary tuberculosis the temperature rarely goes above 103. The toxins of typhoid produce delirium and unconsciousness while in tuberculosis the mind is practically always clear.

The toxins of diphtheria, scarlatina and a number of other diseases excreted by the kidneys produce nephritis. In tuberculosis such a long continued irritation would produce a nephritis, yet there is none. Toxins have been isolated from tetanus and diph-

theria cultures but no where do we read of the isolation of a toxin from the growth of tubercle bacilli.

Behring immunized animals against tetanus and prepared an antitoxin that would protect animals suffering from that disease. In diphtheria we have to deal with a toxemia and to prove this conclusively an antitoxin has been prepared by immunizing animals. With reference to this in tuberculosis. Baldwin of Saranac Lake says: "Antitoxic serums have met with little success. Trudeau and Baldwin could obtain no evidence of any antitoxic properties in the serum of the horse, cow, chicken or rabbit treated with tuberculin."

We might learn a lesson by observing nature's method of curing tuberculosis. Nature treats the tubercle bacillus as a foreign body and not as a toxin producing organism. A bullet lodged in the tissues is encysted and gives no further trouble. Nature attempts to encapsulate the tubercle bacilli and in the strong, succeeds. While the bullet is being encysted, though the wound be aseptic, there is slight fever and leucocytosis just as we observe in tuberculosis during the process of encapsulation.

As to the merits of the tuberculin let me quote a few leading physicians. Abbott, Prof. Bacteriology, University of Pennsylvania: "As a curative agent for tuberculosis, tuberculin has not merited the confidence that was at first accorded to it. Its field of usefulness is now almost limited to the diagnosis of obscure cases, and for this purpose it is less frequently employed than formerly."

Stevens, Prof. Physical Diagnosis, University of Pennsylvania. "Tuberculin is now rarely used as a therapeutic agent, although it is still retained for diagnostic purposes."

Osler: "The use of tuberculin has been in great part abandoned, but recently Koch, Behring and others have again called attention to its possible value."

Shoemaker, Prof. Materia Medica and Therapeutics, Medico-Chirurgical College: "Experience has amply demonstrated that, as a curative agent, tuberculin is valueless."

Jenner's vaccine is used to immunize the well, thus preventing the development of small pox. Who would withhold the vaccine until small pox develops and then inject it in an effort to raise the patient's opsonic index? If it has virtue why is tuberculin not used to prevent the development of tuberculosis?

Special attention is called to the class of patients for which tuberculin is recommended. Baldwin says: "Tuberculin should be administered to patients who are afebrile

and in a state of good nutrition. It is also indicated in early closed pulmonary tuberculosis. In patients whose temperature reaches 101, too much must not be expected from tuberculin. It is rarely wise to administer tuberculin to patients whose minimum temperature does not fall below 99 every day. It should never be given to patients suffering from acute coryza, gastric disorders, fatigue or is feeling 'out of sorts' from any cause."

Koch says: "The application of tuberculin should be restricted to those cases not too far advanced and not complicated by the streptococcus, staphylococcus, pneumococcus and influenza bacillus, since those processes are almost always accompanied by an elevation of temperature. The best way to guard against the misapplication of tuberculin is to administer it in no case where the temperature exceeds 98.6. The hygienic and dietetic treatment should be faithfully followed throughout this treatment."

Note, too, the time required to effect cures by this treatment. Baldwin says: "It is futile to expect any course of tuberculin treatment extending over two or three months to be of any permanent value. No patient should be given tuberculin who cannot follow the treatment for at least five months."

Trudeau says. "I am convinced that this treatment should be extended over a long time. Time is an important element in obtaining the best results. Six months is almost always necessary and a year or more would be better in many cases."

To summarize, tuberculosis is itself non-toxic. (1) Because no toxin can be isolated. No world-wide immunity is produced by its prevalence. (3) Because no immunity can be induced in animals. (4) Because the symptoms are not pronounced as in other toxemias. (5) Because all the symptoms can be otherwise accounted for. (6) Because tuberculin will not prevent those in good health from contracting the disease.

The tuberculin treatment is a failure. (1) Because a vaccine treatment is useless in a non-toxic disease. (2) Because it can be used only in the mildest cases. (3) Because it fails in these cases without the hygienic and dietetic measures which effect cures without it. (4) Because the same time is required to effect a cure that it required without it.

We conclude, therefore, that infinitely more of these mild cases recover every year without any treatment than tuberculin has ever cured, or in my opinion, ever will.

Vaginal Caesarean Section.—Hofmeier (Deutsche. med. Wchenschr.) says that colpo-hysterotomy should not be represented as a harmless operation. Very alarming hæmorrhage may be caused by deep incisions made into the uterus which has not contracted, uncontrollable by plugging, and necessitating hysterectomy. Hofmeier warns against the present tendency to surgical obstetrics, to the neglect of well-recognized and less dangerous methods of treatment. The writer believes in the value of operative treatment in such conditions as eclampsia and placenta prævia, but favors conservative measures in such conditions as prolapse of the cord.

Effects of Iodine Injections on the Blood.—Giannasso (British Medical Journal) has treated twenty cases of osseous tuberculosis in children by Durante's method of injection of an iodide solution of iodine and noted the effect of such treatment on the blood. Careful examination of the blood was made before the treatment was started, and then again after about 30 injections of one cubic centimeter had been given. As regards the iodine treatment itself, all the cases were considerably improved by it and suffered no inconveniences. A marked increase in the number of red corpuscles and in the hæmoglobin and globulin index was noted. In fourteen out of twenty cases there was an increase in the white corpuscles. The mononucleated leucocytes (especially the small ones) were increased. This increased leucocytosis would strengthen the phagocytic powers of the cells of the body, and hence increase the resisting power of the organism to the tubercle bacilli.

A New Form of Nutrient.—In Der Kinderarzt Kuhner states that the body of the child excretes per kilo of weight 500 c.c. of carbon dioxide, whereas the adult loses only 300 c.c. The body of the child, therefore, which has to work strenuously during its growth needs greater nourishment proportionately than that of the adult. The relationship between the motive-power and the body-mass in animals becomes more and more disproportionate as the body grows, because the weight increases in cubes; whereas the motive-power, which is estimated not by weight, but by the diameter of the muscles, grows by squares. So, too, with the skin and other structures. Therefore the child's body, in order to keep up its temperature, must produce relatively more heat units than the adult. For this purpose candol, which is a malt preparation, is suggested by the writer, who finds in it a valuable form of nutrient for building up the tissues.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE, N. C.

UROBILINURIA.

The occurrence of urobilinuria in so many varying diseases has apparently robbed it of any special diagnostic importance in the eyes of clinicians, and for some time past there has been much discussion concerning its significance. Various theories have been suggested to explain its origin—hepatogenous, hematogenous, and nephrogenous, but the one generally credited is the enterogenous. Briefly this is as follows: Bilirubin is formed from the blood pigment by the liver cells whether healthy or diseased. If the flow of bile is unobstructed, the bilirubin is acted upon by bacteria and reduced to urobilin. This is in part absorbed and in part thrown off with the feces, the part absorbed by the intestine being brought to the kidneys and excreted in the urine. This is the generally adopted view as to the origin of urobilin, and although it does not explain all the clinical findings, yet it is the theory which has been best supported by experimentation. It will be readily surmised that when bacterial activity is suspended, as in new-born children, there will be found no urobilin in the urine, and when there is absolute blocking of the common duct, this is also true. After such an obstruction, when the pressure has been released and the bile flows once more uninterruptedly into the bowel, the urine contains great quantities of urobilin. Clinical conditions, such as pulmonary tuberculosis, cardiac disease, pernicious anemia, and acute febrile diseases are also associated with urobilinuria, and a satisfactory explanation has not been forthcoming.

Fischler in the *Munch. med. Wochenschr.* 1908, July 7th, publishes a paper in which he attempts to ascribe to urobilinuria a great clinical importance in the diagnosis of liver disorders, believing that urobilin is but an expression of diseased hepatic tissue. Of course in diseases such as cirrhosis or mechanical obstruction to the outflow of bile, the matter is very easy, but he seeks to explain the occurrence of urobilin in such diseases as consumption, heart disease, and so forth, on pathological grounds.

In cardiac disease the nutmeg liver and the liver of passive congestion are too well known to cause much comment, and are sufficiently diseased to bring about impairment of function. In acute cardiac disease there is no urobilin but just as soon as there

is failing compensation it appears, and it is then that the liver is damaged.

In phthisis Fischler believes the liver is almost always involved, and he thinks a good prognostic sign is to be found in urobilin, as the severe cases are invariably associated with pronounced urobilinuria. In pernicious anemia, he points to the enormous hemosiderosis, which he thinks even in the absence of pathologic changes, is enough to cause marked functional disturbances.

Acute infections are generally associated with impairment of the liver parenchyma and he asserts that destruction of bacterial toxins is as much the function of the liver as is the property to act on metabolic poisons, such as phosphorus and lead.

Fischler prefers to regard urobilinuria as due to any disease of the liver, which interferes with its function of regulating the outflow of urobilin, and discredits the enterogenic theory. What the normal mechanism is he does not state, but he believes he has solved the urobilin riddle on the grounds of pure pathology.

PSYCHOTHERAPY AND CHRISTIAN SCIENCE.

Under the heading "One Hundred Christian Science Cases" Dr. R. C. Cabot offers a timely article in the August number of McClure's Magazine. He has collected from the *Christian Science Journal*, testimonials of one hundred patients and classifies them into groups of (1) Functional or nervous disorders. (2) Apparently organic disease. (3) Probably functional disorders. (4) Cases in which no diagnosis was possible.

Cabot points out that of these hundred cases probably eighty-three were *functional* cases with no organic basis, seven were organic and ten could not be diagnosed. How easily one may be deceived in diagnosis is shown by every one's personal experience with patients suffering with functional disorders. These come to the physician cocked and primed with "home made diagnoses," such as "Bright's Disease," "Heart Trouble," "Lung Complaint," "Complication of Diseases," etc., etc., based on the most indefinite symptoms. How much more easily can less experienced observers be deceived is plainly hinted at, so the diagnosis of organic disease by Christian Scientists is always to be regarded skeptically.

A very striking observation is, that of 75 testimonial letters recently examined, 56 showed similarity within exactly five lines of the end, and in other instances a more than accidental sameness is observed by the use of the phrase "materia medica" in twelve letters. The naive manner in which

Cabot comments on these facts is worthy of quotation. " * * * One cannot help believing either that these letters have been liberally edited or that their writers have been much influenced by reading or hearing of similar cases. This does not necessarily imply any charge of intentional deception, but weakens very considerably their value as evidence."

That Christian Science is of value in certain cases there can be no doubt, but there is also no doubt that if physicians would recognize the functional disorder at the bottom of the trouble a proper application of more than is contained in our *materia medica*, *e. g.*, suggestion, would also bring about "miraculous cures." The cases of functional disease that come to one's office exhibiting medical Wanderlust, which propels them from one physician to another for treatment, are cases which finally drift to the "quack" and are eventually cured. And why should he be the one who finally effects a cure? Simply because of his vocation, he recognizes the peculiar type of patient that comes to men of his stamp, and knowing from experience that but few organic cases consult his kind, he makes a quasi diagnosis by exclusion.

Bene curat qui bene diagnoscit. This is the solution! Psychotherapy is arousing more and more attention throughout the medical world, and this is what Christian Scientists are practicing not wisely but well. Diagnosis, apart from the small knowledge of human nature, plays no role in their therapeutics. They have no knowledge of morbid processes and recognize none. Hence psychotherapy in their hands is dangerous in the few instances of organic disease which come to their lair. How much better trained physicians could use suggestion does not require much thought. Medical schools are recognizing the proper place of drugs in a physician's mental equipment, and less teaching of *materia medica* is now the rule. Drugs and surgical measures have their fixed position and we do not decry their value, but in functional nervous disorders they have a place secondary to psychotherapy. This is being admitted more and more, and when recognized more generally by physicians, the Christian Scientists "shall fold their tents, like the Arabs, and as silently steal away."

THE DANGER OF THE SPREAD OF PLAGUE.

The gradual advance of plague from the Continent of South America northward in the past two years to the Islands of the Spanish Main constitutes a serious menace to the Atlantic and Gulf ports of the United States. Health and quarantine officers, and

others charged with the responsibility of conserving the public health at the ports of entry, have a serious duty in hand and should neglect no measure that will afford a greater protection to the country.

Plague is a rat disease primarily and is spread, as a rule, from one country to another through the agency of ship-borne rats. Human agencies play a relatively unimportant role in its dissemination. This knowledge suggests the methods to be employed at our ports in combating the advance of this oriental infection. The danger is to be sought not so often in the personnel and cargo of a vessel, but in the unseen passengers which have entered the hold by ways that are dark and devious. In other words, the measures should be directed with especial reference to the prevention of the landing of rats from ships.

While the maritime officials are thus engaged, the health departments of the cities of the Atlantic Seaboard would do well to adopt measures to rid their cities of rats. Intelligent men should be employed solely for this purpose and a systematic campaign of trapping and poisoning waged for a long period of time. Rats trapped or found dead should be turned in at the city laboratory and examined bacteriologically and the causes of death determined. Professional rat catchers, if employed, should be required to show the rats killed, else they will simply drive the rats from one warehouse to another. The game of "hide and seek," between man and rats, is too often played by these chaps at the expense of the municipality.

Of special interest in this connection are the findings of the bacteriologists of the U. S. Public Health and Marine-Hospital Service, in the rats of San Francisco. Leprosy, scabies, trichinosis, malignant disease and tapeworms are fairly common among them. The question naturally arises, "Are these diseases disseminated among human beings by rats?" What we do know is this, "without rats there can be no epidemic of plague."

THE LURE OF SURGERY.

Surgery is interesting; it is fascinating. There is no wonder the young man in college—the Junior or the Senior in the amphitheatre—is filled with a desire to don the aseptic gown and take up the sterilized knife; he can not help it. The scene that greets his eye is spectacular; it appeals to his dramatic sensibilities, and he longs to emulate his skilled instructor.

There comes to him rumors of large fees—an effective argument to stimulate his ambition—and he pictures to himself a life of opulence.

Fame: He hears the people talk of Doc-

tor So-and-so. He hears them speak in awed tones of his great skill; how he saved the life of Mister Jones after five doctors had given him up, or how Miss Smith died in spite of all efforts of the great surgeon. Oh, surgery is enticing when surgery is synonymous with fame—and the student only knows the surgery of famer. It is not strange he sets his aim to join this great tribunal—the court of last appeal—surgery.

He sees the internes come and go—immaculate creatures in starched white duck; foreheads contracted deep with thought and shoulders bent low with responsibility. He hears them say, "Nurse" do this or "Nurse" do that. He recognizes their commanding position in ward and in clinic. Human nature was born to display and command; the student must not be blamed if he looks with wistful eyes upon the uniform of duck.

In time he, too, wears the uniform. And then the road to surgery looms broad and straight before him. The hospital regime fosters the surgical spirit, and he travels easily along.

At last he starts out for himself. General medicine does not look good to him—colds, headaches and minor ills are commonplace; the general practitioner, the family doctor of old, is obsolete. The high degree of specialization of medicine has made him but a sign-post on the highway of human ills, pointing the road to the man of "Special attention" and—good fees.

Result: If the young man has money, he takes a flying trip to Europe, returns and sends out nicely engraved cards announcing that he is prepared to devote "special attention" to general surgery, abdominal, gynecologic, or orthopedic; if he has no money, he cuts out the trip to Europe, but announces—cards printed—just the same.

Now: Count the thousands of embryonic surgeons there are today; how many are successful? Surgical fame is a difficult prize to obtain and surgical opulence is elusive.

Moral: Make the medical clinics more interesting—more spectacular—more dramatic.

HOW THE MALARIAL PARASITE PERPETUATES ITS EXISTENCE.

It is fairly common knowledge these days that the mosquito is responsible for the spread of malaria. There are few among the medical profession who have failed to accept the mosquito theory as a proven fact (yet it must be said that here and there a dissenter is found). We know that the malarial parasite has for its definitive host the human body in which it undergoes one cycle of its development; and for its inter-

mediate host the anopheles mosquito in the body of which it undergoes another cycle of development. It is not necessary that a discussion of these cycles be taken up here; the point we wish to emphasize is that there are certain forms developed within the human body which display a marked resistance to the action of quinine. This drug has the reputation of being a specific for malarial infection and in the great majority of cases this is true; but as every physician who has ever treated a considerable number of patients suffering with this disease, knows quinine has in some cases only a temporary effect. In other words there are developed in the body of the human being certain forms of the malarial parasite upon which the drug has little or no effect; on the other hand the vast majority of the parasites in the blood of a patient are killed by quinine and we are compelled to believe that in many cases all succumb to the action of this drug. In the latter instance the patient recovers, and, provided no reinfection from without occurs, there is no return of symptoms. But in case these resistant forms have developed in the blood there will be a return of symptoms sooner or later. Nothing is better recognized even by the public than the fact that chills and fever is apt to recur at the end of days, or weeks, or even months; and even during those seasons of the year when, and in localities where, there is no possibility that reinfection could have taken place as a result of the bites of mosquitoes.

In this manner then the malarial parasite may be said to exist during those seasons of the year when its intermediate host, the mosquito, is, at least, not in evidence. The *plasmodium malarie* is an animal organism; it requires for its growth and development a certain amount of heat and darkness, and a certain amount of albumin or living protoplasm; without these it cannot exist. The body of the hibernating mosquito is scarcely favorable for its existence throughout the winter months and even were this true the hibernated female when they come forth in the spring cannot transmit the parasites to their offspring, and their term of existence is probably too short for them to have conveyed the disease to human beings, yet this latter possibility must be admitted.

Thus it can be seen that there is at least one positive source from which the new crop of anopheles mosquitoes may procure the malarial parasite, viz. the blood of a human being in whom the organism has existed in its more resistant and more or less latent forms, in spite of the effect of quinine. These more resistant parasites, once they have been removed from the human blood,

are quite capable of undergoing the normal cycle of development within the body of the mosquito.

On the other hand the possibility must be admitted that an infected female mosquito may have lived throughout the hibernating period and upon the appearance of warm weather may have come forth seeking food and thus have infected a human being. This human being would then be capable of furnishing in his blood the plasmodium for the next generation of anopheles.

We have recited these ideas because there is frequently a lack of clear understanding as to how the malarial parasite perpetuates its existence. The fact must be kept clearly in mind that the mosquito is quite incapable of infecting any human being with malarial parasites until it has first become infected itself by sucking from a human being blood which contains the plasmodia.

THE CANCER PROBLEM.

While the scientific world is devoting so much attention to the problem of preventing tuberculosis, there is steadily developing a campaign against another disease which is only less dreadful because less prevalent. We have progressed scarcely any nearer the solution of the cancer problem than had our forefathers one hundred years ago. It is a disease just as deadly, the mortality from cancer in the United States in 1907 being 4.4 per 100; or in other words over 35,000 people died in this country last year from this one cause, and so far there is scarcely one ray of hope to lighten the horizon or a promise of success in the search for the cause of the disease. In the case of tuberculosis the cause has been known these many years and there is no disease concerning which man has attained to greater knowledge. There is something real and tangible upon which to centre our efforts, and we believe that at some distant day man will no longer suffer from the ravages of the great white plague. On the other hand little or nothing is known concerning the etiology and pathogenesis of cancer, in fact it may be said that nothing is yet known as to the cause of the disease. Nevertheless there are numbers of devoted men who are investigating and observing and collecting data upon which they hope to establish results. In European countries, Germany and Great Britain especially, the most decided campaign has been undertaken, but on this side of the Atlantic also there are men who are delving into the problem with zeal and enthusiasm. In Germany, von Leyden a few years ago instigated the beginning of this organization of effort, and to him, more per-

haps than to any other one man, is to be given the credit for the attempt to obtain fuller data concerning the distribution and origin of cancer in Europe. As a result of von Leyden's work there has been organized an International Association for Cancer Research, which, according to its constitution has the following purposes; 1. The promotion of institutions for research, as well as for the care of cancer patients, and the campaign against cancer. 2. The collection of uniform international statistics regarding cancer. 3. The formation of an international intelligence bureau for all questions regarding cancer research. 4. The publication of an international journal for cancer research. 5. The preparation of international congresses on cancer. 6. The education of the public regarding the nature of cancer, in order that the laity may recognize it as early as possible.

The researches of Ehrlich have seemed to throw some light on the origin of transmission of cancer, but it is too soon to accept his work as anything more positive than contributory evidence. Bashford in England, Borrel in France, Jensen in Denmark, Podwysotski in Russia, Loeb and Flexner in America, have worked along lines similar to those adopted by Ehrlich. All these investigators have obtained their results from animal experimentation, and it must be borne in mind that it is difficult to transfer such results to human pathology. One problem at least seems to have been cleared up: the experiments on animals have sustained the view of most pathologists that a parasite is not involved in the origin of cancer, but that the development of the tumor is connected only with cancer cells.

Says the Berlin correspondent to the Journal of the American Medical Association in a letter in one of the mid-summer issues:

"It is a long way from investigations regarding the pathogenesis of cancer to a successful campaign against disease, and all attempts which have hitherto been made have produced indifferent results. A serum against cancer has not yet been discovered. Experiments with the ferments, with arsenic preparations and the like are not yet completed, and for the present the knife still remains the most successful remedy. Whether treatment with high tension sparks, recently recommended by the Marseilles physician, Keating Hart, for inoperable carcinoma (or as a preliminary to operation), will furnish favorable results and fulfill the hopes which it has aroused, remains to be seen. Radiotherapy has shown positive results only in cancer of the skin. In consideration of the relatively slight prospect of curing patients with cancer, especially when the disease is already some-

what advanced, it must be regarded as an urgent duty to keep the lay public informed regarding the nature of the disease and to urge them to secure timely medical treatment."

Thermal-Belt Sanitarium for Tuberculosis.

Sanitorium treatment of pulmonary diseases is daily coming to be recognized more and more as the treatment which promises and gives the very best results obtainable. The patient leaving home gets away from his surroundings, temporarily gives up business, renounces his pleasures, lives for his health, does everything that is conducive to recovery, avoids all that is injurious, is under the constant care of physicians. One of the most up-to-date and thoroughly equipped in all respects of modern sanatoria is the Thermal-Belt Sanitarium for Tuberculosis located at Tryon, N. C. At an altitude above the sea of 1,100 feet, in one of the most picturesque and beautiful sections of the United States, where the air is pure and sweet, in a climate than which on earth there is no finer. Tryon offers to the sufferer many advantages not to be found elsewhere. Every comfort and convenience is provided for patients and the physicians in charge are qualified both by education and by experience to give those entrusted to their care every benefit which modern science has found to be best for the care of tuberculous patients. The place is accessible to all parts of the country. To Doctors having patients who must seek such an institution we recommend that they investigate the Thermal-Belt Sanitarium. The staff includes: Consulting Physician, Henry J. Garrigues, M. D., of New York; Visiting Physicians, Earle Grady, M. D., E. M. Salley, M. D. Physician in Charge, W. Roy Engel, M. D.

The great stumbling block which hinders the advance of public sanitation and the prevention of disease in America is *ignorance*,—ignorance among law makers, and law executives, and of course primarily among the people of the nation. Contrast the 20,738 cases of typhoid, with 1,580 deaths in our army of 107,975 men in the war with Spain, with 189 cases of typhoid in General Oku's force of 100,000 in the Jap-Russian conflict, with no deaths. Our men sickened and died in our own country, whereas the Japanese soldiers were in a hostile land. The difference was that the Japanese medical staff had training and authority, and the privates were educated in hygiene, whereas the American surgeons were everywhere restrained by the ignorance, and the jealous arrogance of the line

officers, aided by the false ideas of freedom among the men.

While it is doubtless the civic duty of physicians to aid in the defeat of legislators who show a hostile tendency towards sanitary matters, the real trouble lies deeper. The whole body politic must be educated.

Ignorance is expensive, and especially so in sanitary matters. Take the loss from typhoid above mentioned. Typhoid is a preventable disease. Its existence anywhere is a mark of disgrace. The loss of life from that cause was absolutely inexcusable, and contrasted with the Japanese record it should quickly puncture the bubble of false American pride. Omitting the suffering and sorrow, and even the monetary loss due to sickness, the deficit resulting from these typhoid deaths was enormous. In this country a human life is generally figured at \$5,000. Our dead soldiers, taken from the prime of life, certainly represent the greatest loss to the community. 1,580 deaths at \$5,000 each, equals \$7,900,000. This was only part of our preventable loss due to popular ignorance.

Why should there be this general ignorance? Because those to whom the community looks for guidance are themselves lacking in knowledge. The college graduate is rightly expected to be a leader in civic and sociologic matters, yet how many of them have even a very elemental knowledge of public sanitation? They *think* they know, and therein lies the danger. They get one idea on a subject, and imagine that they "know it all." Tirades against vaccination are based entirely upon prejudice and ignorance, without a single scientific fact, but we find such movements led by college graduates. Why? Because public sanitation is not taught in many colleges. Personal hygiene is often taught, even in the elemental schools, and that fact perhaps tends to create an impression that hygiene is largely of individual concern. This is not true. Individuals are parts of the community, and as such owe certain duties toward every other individual. Morally a man has no more right to have typhoid or yellow fever, than he has to destroy his house by fire while it is surrounded by the residences of his neighbors. Every college owes it to its students, and to the community, that a thorough course in public sanitation should be given. That this should be obligatory may be inferred from the classes of people for whom in the Columbian Quarterly Dr. Ditman, of Columbia University, suggests special courses: "Physicians, health officers, sanitary engineers, school teachers, school nurses, school inspectors, theological students, legislators, charity society officers, and social workers."

There is a marked resemblance between the ordinary hospital report and the advertisement of a quack doctor. The profession very properly condemns the man who publishes, either in the daily paper or by pamphlet, a glowing description of his office, the number of assistants employed, and a statement of the number of patients treated for different diseases. The hospital report, printed for general distribution in the community, generally gives a description of the equipment and the names of the staff, with a list of the cases treated. It is a rare thing to find anything in these reports of value to the student or practitioner. When it is remembered that most hospitals are what are called "close corporations," and that a position on the staff is generally secured through skillful wire-pulling, and further, that the members of the staff are constantly using the position to their own advantage, and to the great financial detriment of the private practitioner who has, either through necessity, or shortsightedness, sent his patient to the hospital, it is difficult to find any essential difference between the condemned and the approved advertisement. This is particularly true of the numerous smaller institutions found in the cities and villages throughout the land.

In the report of one hospital, for example, the following is all that is said relative to diseases of the throat, nose and ear, except a list of operations:

Adenoids.....	14
Hypertrophied Tonsils.....	16
Mastoiditis.....	1
Otorrhœa.....	10
Pharyngitis.....	2
Rhinitis.....	3
Septum deflected.....	3
" " double.....	1
Tonsillitis.....	2
Trachitis.....	1
Uvula elongated.....	1

While the above report might indicate to the uninformed that it represents fifty-four patients, it is quite possible that there were only sixteen persons. It gives no hint as to the character or duration of treatment, or results. Of what interest is a bare statement that a hospital treated 100 cases of typhoid fever with ten deaths, or that there were 500 operations for appendicitis with five deaths? Such data are nothing but advertisements, and of no other value.

Hospitals should do something more than treat patients. They should contribute their share in the advancement of medicine. Every report should give an original study of at least one disease—the etiology, pathology or treatment.

Only in hospitals is it possible to make

comprehensive investigations of such questions as the comparative value of the synthetic and natural salicylic acid. Why are they not made, and the results given to the profession? No physician is fit to be on a hospital staff, unless he is competent and willing to aid in such work. He owes this much to the community and to the profession.

The observations of a single practitioner are valuable as far as they go, but they may be easily offset by the data collected by others. The genito-urinary specialist may report that, judging from a series of 100 patients, ninety per cent. of people have gonorrhea; and the chest expert may report that only five per cent. of 1000 cases gave any history or evidence of the disease. Combining these reports we get 12.7% as a more correct answer. Such a question may be better answered in a hospital than by any private observer, and the exact basis for the deductions should be given clearly. Even the smallest hospital could do this, and in the larger institutions which employ pathologists much benefit to the science would follow such studies as the bacteriology of the feces, or the physical characteristics of the blood in special diseases. Since such a report would be colored by local conditions, and the personality of the observer, it is clear that much greater benefit would come from a combined study by all the hospitals in the nation.

THE DEATH TOLL OF TUBERCULOSIS.

A bulletin of very distinct value was recently published by the Census Bureau concerning Tuberculosis in the United States. It contains a compilation of interesting and, at the same time, appalling statistics concerning this dread disease in this country. It is when one begins to attempt a calculation of the economic value of human lives that one becomes astounded at what the mortality from tuberculosis means. The disease kills men and women chiefly in the most active, most productive period of life, when their work is worth most to themselves, to their families, and to the world. While such loss cannot be stated in dollars and cents, for it transcends all symbols of value, we may consider with amazement some of the results that have been obtained by conservative writers in an attempt to find some clue to the economic injury resulting from this single disease. An article by F. L. Hoffman gives some calculations based on facts, and in view of the present active warfare organizing against tuberculosis what he says is worth reading. Tuberculosis causes annually more than 150,000 deaths in the United States at the average age of thirty-five years. At this age the

normal after-lifetime is about thirty-two years, so that the real loss of life covered, measured in time, is represented by 4,800,000 years per annum. If we assume that the net value of a year of human life after thirty-five years of age is at least \$50, the real loss to the nation resulting from the disease (a large proportion of which is known to be needless) may be estimated at \$240,000,000 per annum. These astounding and almost incomprehensible figures are far from being an exaggeration, but let us assume that only one-half of this mortality is preventable, and we have a net possible saving to the nation of \$120,000,000 per annum. This estimate does not take into account the social, moral, and sentimental value of at least 100,000 lives, which, under different conditions, might reasonably hope to continue for many years. The mortality from tuberculosis is, therefore, a problem, compared with which all other social problems of a medical character sink into insignificance, and it is safe to say that the possible prevention of a large portion of the mortality from this disease is justly deserving of the solicitude, the active personal interest, and liberal pecuniary support of all who have the real welfare of the people of the nation at their heart.

Collier's, in an editorial under the title "Expressed in Money," put it higher. Hunter has estimated the average cost of preparing a man for usefulness at \$1,500. If we could master tuberculosis, the saving in money to the United States would be \$330,000,000 per year.

The death rate from tuberculosis has already shown an appreciable decline. For the registration area in the United States the mortality in 1900 was 201 per 100,000 population; in 1907 it was 183. Thus already there can be seen some result of man's struggle against the worst destroyer of his kind.

QUARANTINE AND DISINFECTION.

Every physician in the State of North Carolina recognizes the absolute necessity of isolating patients who are suffering from contagious diseases and of adopting such measures with regard to those afflicted with every infectious malady as shall prevent the transmission of the disease from one person to another. We are sure that every careful doctor will use all means within his power to carry out such measures, without any compulsion on the part of the State, county, or municipal laws. And yet it isn't always an easy matter to know just what to do in these cases. The State Board of Health has recently sent to doctors far and wide in North Carolina a circular of instructions setting forth the State laws relating to

Quarantine and Disinfection and including in its pages ample instructions as to the carrying out of these laws.

The efficiency of these laws depends largely upon the manner of their enforcement, and the readiness with which doctors comply with them.

It is practically established that, if the instructions given in this circular sent out by the Board of Health are faithfully carried out, these justly dreaded diseases will not spread. Such being the fact, the responsibility of those whose duty it is to carry them out is great.

Although not named in the law as requiring isolation and disinfection, it is now so well established that typhoid fever is transmitted by contact and by fomites, and that tuberculosis is most frequently acquired in infected rooms, the conscientious physician will see that it is necessary that the rooms occupied and the articles used by such patients are disinfected.

County superintendents of health and municipal health officers would find it a great help in their efforts to prevent epidemics if they would promptly furnish to both the attending physician and the householder in whose family any contagious or infectious disease occurs a copy of these instructions.

In order to aid the physician in making a prompt and certain diagnosis, and thereby assist in preventing the spread of disease, the State has provided in its Laboratory of Hygiene, which is under the control of the State Board of Health, facilities for the examination of suspected drinking waters, and of specimens in cases of suspected diphtheria, tuberculosis, typhoid and malarial fevers, hook-worm disease, as well as in any other instances where laboratory methods are called for. These examinations are made for physicians free of charge. For particulars and instructions concerning the taking and shipping of specimens to be examined, address the State Laboratory of Hygiene, Raleigh, N. C.

ARTERIO-SCLEROSIS OF THE UTERUS.

Arterio-sclerosis is a subject which is engaging the attention of medical men in no small degree. That an individual is "as old as his arteries" has for a long time been an expression in the mouths of doctors. Lately we have learned that these arterial changes may be localized more or less in certain organs or tissues upon which nature imposes certain stresses. It is now known that arterio-sclerosis of the uterine vessels is by no means uncommon, and that many cases of metrorrhagia and menorrhagia may result from such pathologic conditions in these vessels. Recently Dr. Chas. M. Rees,

of Charleston, discussed this subject, in a most interesting manner, in a paper read before the American Association of Obstetricians and Gynecologists, and we consider his paper of such value as to merit our editorial notice. From the frequent physiologic changes to which the uterine blood supply is subjected, and the resistance offered, sclerotic changes are favored, and sclerosis and even atheroma with calcareous deposits in the uterine arterial walls are found localized in the uterus. These changes occur most frequently about the menopause, and may be the cause of alarming hemorrhages, which are uncontrollable by any of the ordinary measures, and hysterectomy become necessary to save life. Arterio-sclerosis of these uterine vessels coming on, as it usually does at the cancer period of a woman's life, in the majority of cases, gives rise to clinical signs which in many cases render impossible the differentiation of the condition from cancer by any other means save hysterectomy and microscopic examination. The diagnosis can be made only when it is possible to exclude every other cause of hemorrhage from the uterus, and by microscopic study of scrapings in which portions of sclerosed vessels are found. Arterio-sclerosis, as a definite cause of hemorrhage from the uterus, occurring in women between the ages of 40 and 50, and among those who have borne children is of greater importance than has been generally determined. These hemorrhages, in a fair proportion of cases, are in themselves sufficient to endanger the life of a woman. Dr. Rees believes that in such cases hysterectomy is fully justified.

AN INJUSTICE DONE.

Within the past few weeks one of the daily papers of the State very ill-advisedly published a story told by a former inmate of the Central Insane Asylum, located at Raleigh, in which he gave a harrowing account of mistreatment of patients at this institution. We say the story was published ill-advisedly, and we say so for two reasons. In the first place such a report is defamatory to the character of the State. Persons outside North Carolina reading this story must inevitably arrive at totally wrong and unjust conclusions concerning our methods of caring for those unfortunate mentally diseased patients for whom the State has made and is still making such magnificent provision. Little else could be believed but that North Carolina is a State whose people have progressed little beyond barbarianism. The other reason is that the story is not true and any paper is unwarranted in accepting from such a source and publishing without substantiation any story calcu-

lated to create so wrong an impression. The very fact that the reciter had been an inmate of an insane hospital should have discredited his tale, and when the fact comes to light that he had not only one time but several times been placed in such institutions his story is still further discredited. The facts are that Dr. James McKee, the superintendent of this Hospital, is recognized by the people and by the profession generally as a kindly, humane gentleman, thoroughly capable of managing the affairs of such an Asylum, and a man, too, who recognizes fully the great responsibilities of the position he occupies. The profession is cognizant of the excellent manner in which this institution is managed and a visit at any time to its wards will impress one that no effort is spared to have everything in the best possible hygienic condition, clean, and comfortable. The food is well cooked, nourishing and abundant.

There is no doubt but that one could hear from the lips of inmates of any asylum on earth stories in all respects similar to this one which has been published. One does not expect sane accounts from the insane, and a patient who has once been confined because of his mental condition is very likely to carry with him delusions conceived by his disordered mind.

We are glad to read in many of the State papers a wholesale denial of these stories in a personal letter from Dr. McKee; and it is likewise particularly gratifying to note the stand of many of these papers and the editorial expressions in his behalf. It is not a matter of politics but a case in which simple justice must be done and defamation of the name of a great State be prevented.

NEW THEORIES CONCERNING THE PHYSIOLOGY OF DIGESTION.

Recent progress in the study of the movements of the stomach and intestine are interesting, inasmuch as this motion ultimately mixes the food with secretions, favors absorption and forces the food along from one segment of the alimentary canal to another. These movements seem to be under the control of the nervous system; so far no substance has been found that influences the movements of the alimentary canal by means of its action through the medium of the blood. Peristalsis, according to our present conceptions, is a co-ordinate act. When there is contraction above there is relaxation below; so that the propulsion of food from above downward can easily be accomplished. When there is in-co-ordination—that is, when the proximal segment does not relax—there is, according to Meltzer, the condition which we recognize as colic. A peristaltic contraction

means a contraction of muscle behind the bolus along with a relaxation of muscle in front of it. Thus it occurs that the stomach is in a relaxed condition when food is carried into it through the esophagus. The stomach, after food enters it, remains quiet from a half to three-quarters of an hour; although the secretion of gastric juice, excited reflexly by the sight, taste and smell of food, begins even before the food has reached the stomach. The insalivated mass of masticated food upon reaching the stomach is alkaline in reaction and, until the hydrochloric acid of the gastric juice has neutralized this alkalinity, salivary digestion continues even in the stomach, because it requires from a half to three-quarters of an hour for the acid gastric secretion to permeate the mass of food in the fundus of the stomach. It is well to remember that the movements of the stomach differ in the two parts—the pyloric end and the cardiac end. The tubular pyloric portion receives the food from the bag-like cardiac end, the wave-like contractions forcing the contents against the closed pylorus. Here being unable to escape, the food is pushed back to be churned all over again. In this way all the food is brought into direct contact with the pyloric mucous membrane and is there subjected to the special action of its secretory glands. When the contents of the stomach have attained a certain degree of acidity the pylorus relaxes and permits a certain amount of the acid chyme to enter the duodenum. Acid in the duodenum causes the pylorus to close, and at the same time its presence in the duodenum produces a substance called *secretin*, which is absorbed and which stimulates further the secretion of the gastric glands, and also superinduces a free flow of bile and pancreatic juice. The last named secretions being alkaline neutralize the acid chyme, and when this has been accomplished the acid in the stomach relaxes the pylorus, again allowing a definite quantity of gastric contents to enter the duodenum, when suddenly again the pylorus closes, due to the acid in the duodenum. The stomach waves continue whether the pylorus be open or not. If it is closed these motions continue to promote the thorough mixing of its contents and as long as the duodenum remains acid the pylorus will not relax. All of this is interesting and to Dr. Chas. D. Aaron we are indebted for this brief resume of what has lately been done toward clearing up the manifest problems of digestion.

VIRGINIA MEDICAL SOCIETY.

The first meeting of the Virginia State Medical Society under the newly adopted constitution and by-laws was held in Rich-

mond, October 20 to 23, the sessions being held in the auditorium of the magnificent Jefferson Hotel of that city. Those in attendance pronounce it one of the best and most profitable meetings in the whole history of the society. Over four hundred doctors from all parts of the State were present and one hundred new names were added to the roster, thus making the membership fully sixteen hundred. Truly a magnificent body of men! The Virginia Medical Society has always been one of the most progressive and yet at the same time one of the most conservative associations in the whole country. An evidence of its devotion to traditions was shown by the refusal to accept the general plan proposed for reorganization by the A. M. A., and also its adherence to the old constitution until the last session, when a new one was adopted. Yet Virginia was one of the first in the United States to establish a State Board of Health and a State Board of Medical Examiners. Taking the regular profession of Virginia as a whole there is no finer set of men anywhere, men who endeavor to uphold the highest ideals of ethics, and there are many among the number who equal in reputation, ability and honor the greatest of the country.

Under the provisions of the new constitution all matters of business are at once referred to the attention of the executive council, which at different times report their findings or recommendations to the society for adoption, amendments, rejection, etc.

This council is composed of one member from each of the ten congressional districts of Virginia and five from the State at large.

Great success attended the trial of this plan and the members were enthusiastic over it. Most of the business hitherto coming before the society as a whole is now transacted by the executive committee, the bulk of the time of the association being given to the reading of papers and discussion of scientific matters.

The new Board of Councillors is composed of the following physicians:

At large—Dr. P. A. Irving, Richmond; Dr. Stephen Harnberger, Catlett; Dr. Kirkland Ruffin, Norfolk; Dr. J. R. Gildersleeve, Tazewell, and Dr. J. S. Pearson, Bristol.

First District—Dr. Clarence Porter Jones, Newport News.

Second District—Dr. E. E. Field, Norfolk.

Third District—Dr. A. L. Gray, Richmond.

Fourth District—Dr. S. A. Hinton, Petersburg.

Fifth District—Dr. J. M. Shackelford, Martinsville.

Sixth District—Dr. George J. Thompkins, Lynchburg.

Seventh District—Dr. William P. McGuire, Winchester.

Eighth District—Dr. Tunis C. Quick, Falls Church.

Ninth District—Dr. J. T. Graham, Wytheville.

Tenth District—Dr. Marshall J. Payne, Staunton.

At the first session, called to order by the President, Dr. W. F. Drewry, the society was cordially welcomed to Richmond by the mayor of the city. Mayor Richardson cited many instances in which members of the medical fraternity in Virginia had rendered splendid service for the people and reflected honor on the State in peace and war.

Dr. L. G. Pedigo, of Roanoke, was given the honor of responding to the address of the mayor.

President W. F. Drewry, in his annual address, denounced the present theory which prevails in some quarters that "experts on insanity" are for sale to the highest bidder, and recommended that the court be empowered to call the expert instead of allowing the defense or the plaintiff to do so.

The title of Dr. Drewry's address, "Correlation of the Physician and the Layman," gave room for a wide range. He briefly reviewed the recent advances in medicine and surgery, as summed up in the modern methods of prevention. Special mention was made of the abandonment of crude methods of nursing and the general introduction of the hospital system.

In preventive work the speaker held that there was a broad field for municipal, State and government work, not only in the employment and support of thoroughly trained public health officials, but in the establishment of sanatoria for the tuberculous, and laboratories for original research in typhoid fever, tuberculosis, epilepsy, insanity and cancer. He devoted especial attention to the insanity question, as well as to the stamping out of tuberculosis, and advocated prison reforms.

Among the numerous papers presented by members of the society we mention but a few. Dr. A. L. Tines, of Fishersville, in a discussion of the contagiousness of cancer favored the theory that the disease can be transmitted from individual to individual. Dr. Beverley R. Tucker presented a highly interesting paper on Hysteria. Dr. A. B. Greiner, of Rural Retreat, read a paper entitled "The Physiological Action of Anesthetics." Dr. H. S. Belt, of South Boston, followed Dr. Greiner with a paper on the use of anesthetics in the practice of medicine and obstetrics. Dr. Reid White, of Lexington, discussed the use of anesthesia in the practice of surgery. Dr. Lomax

Gwathmey, of Norfolk, talked about the indications for and the selections for local anesthetics.

This discussion on anesthetics brought out the fact that the use of anesthesia in the practice of medicine and surgery had progressed wonderfully in the past year, and was heard by most of the 300 or 400 delegates in attendance on the convention. Dr. Joseph A. White and Dr. Mark W. Peyser, Dr. A. L. Gray and Dr. T. W. Murrell, all of Richmond, read papers, as did Dr. W. H. Wallace, of Brooklyn.

Papers were also read by Dr. Stephen Harnsberger, of Catlett; Dr. Lewis C. Morris, of Birmingham, Ala.; Dr. G. T. Harrison, of New York; Dr. E. T. Brady, of Abingdon; Dr. Harvey B. Stone, of the University of Virginia; Dr. Hugh M. Taylor, of Richmond; Dr. R. H. Whitehead, of the University of Virginia; Dr. James W. Hunter, of Norfolk; Dr. E. M. Magruder, of Charlottesville; Dr. J. Shelton Horsley, of Richmond; Dr. Southgate Leigh, of Norfolk; Dr. W. L. Peple, of Richmond, and Dr. J. W. Henson, of Richmond.

Following up the slogan sounded in his annual address by President Drewry, a resolution was introduced by Drs. Ribble, Harnsberger, Truman A. Parker, S. T. A. Kent and William Anderson, outlining the campaign to be waged against tuberculosis in Virginia. It was received with much applause. It was decided to begin a concerted session devoted to the consideration of the problem. Dr. Ennion G. Williams, State Health Commissioner, read a paper in which he discussed the work of the State Department of Health. He announced at the outset that preventive measures were primarily the province of that department.

Dr. E. C. Levy, chief health officer of Richmond, told of the work of his department for the past two years that he has been in office.

Dr. Rawley W. Martin, of Lynchburg, who presided, declared that the State, county, city, town and village boards of health of Virginia had met for the purpose of uniting for the great work of improving the health of the people. He introduced Dr. H. S. Hedges, of Charlottesville, who read a paper on the work of a county board.

Dr. S. P. Latane, of Winchester, discussed the work of a town board, saying that a State law was badly needed to give all boards of health more power. In the smaller towns of the State, he said, it was impossible to enforce proper sanitary precautions in deaths, in sickness and in everything that goes for the improvement of the public health.

Physicians of prominence from other

States in attendance on the convention were Dr. A. R. Shands, Washington; Dr. W. P. Carr, Washington; Dr. De Garino, New York; Dr. Tucker Harrison, New York; Dr. W. H. Wallace, Brooklyn; Dr. T. D. Crothers, Hartford; Dr. Lewis C. Morris, Birmingham; Dr. Joseph Price, Philadelphia; Dr. George Tully Vaughn, of Washington; Surgeon-General Rixey, of the United States Navy, and I. D. Mason, of Brooklyn. These gentlemen were heard by the Society with the closest attention.

Dr. Mason, of Brooklyn, read a paper before the convention considering the pauper inebriate from a legal and medical standpoint. The convention greeted him with applause.

Dr. Crothers, of Walnut Lodge Hospital, Hartford, Conn., also discussed the medical side of the alcohol problem. He took an optimistic view of the question, if the proper regulations are enforced and the medical fraternity take hold with a will.

Surgeon-General Rixey addressed the Society on "The Medical Profession as Represented in the United States Navy.

Dr. Stuart McGuire, of Richmond, was elected president of the Society. Other officers chosen are Dr. O. C. Wright, Jarrett, first vice-president; Dr. E. T. Brady, Abingdon, second vice-president; Dr. Reid White, Lexington, third vice-president; Dr. L. B. Edwards, Richmond, secretary, and Dr. R. M. Slaughter, Richmond, treasurer.

Roanoke was chosen as the next place of meeting, the time to be named by the executive committee. The salary of the secretary was increased to \$1,000 per year; the society was divided into two sections, medical and surgical; the annual conventions of the society will hereafter be only in cities having a population of at least 25,000.

President-elect McGuire is one of the best known and most successful surgeons in the South. Both in his hospital work and his private practice he has made an enviable reputation, and he was the choice of the entire convention for the honor. He succeeds an able and popular physician in the person of retiring President Drewry.

We take peculiar pleasure in the election of Dr. McGuire to the office to which he has been elevated. No more distinguished gentleman has honored the chair of the Virginia Medical Society and no son of the South more worthily bears a name than which there is no greater in all the land. Within thirty years Dr. McGuire is the third of his family to have received the honor of having been made president of this body. We commend the good judgment of an association whose personnel is unsurpassed.

UNITED STATES MILITARY SURGEONS

The Association of Military Surgeons of the United States held its seventeenth annual session in Atlanta, Ga., Oct. 13-15. A number of excellent papers and addresses were presented. Among these the address of the President, Dr. George Tully Vaughn, of Washington, D. C., on "The Suture of Wounds of the Heart" deserves special mention. Others were "The Georgia State Forces," by Brigadier General Clifford L. Anderson; "The Medical Profession of Georgia," by Surgeon General W. C. Lyle; "The Use of the Reflectoscope in Teaching Sanitary Lessons and for the Amusement of Men and Officers," by Major Wertenbaker; "Sanatorium Management," by Surgeon Paul N. Carrington. Lieut. Alejandro Ross of the Mexican army, and Capt. J. Carlisle Deveries of the New York National Guard also read most instructive and scholarly papers before the association. Passed Assistant Surgeon M. J. White and Brig.-Gen. Foster, of Massachusetts, were likewise heard with much interest.

The award of the Enno Sanders Medal by the prize medal board was given to Passed Assistant Surgeon William Colby Rucker, of the United States Marine Hospital Service, for his essay on the subject, "The Relation of the Military and Naval Forces of the United States to Public Health."

The addresses by the foreign delegates, Col. Jose Batboso Leao, of Portugal; Lieut.-Col. M. W. M. Russell, of England, and Major E. L. Label, of Canada, were the principal features which added interest to the convention. Major Label asked that the convention be held in Canada next year and that the association be made international. A committee to nominate officers for the ensuing year was appointed and reported the following nominations which was equivalent to election: President, Rear Admiral Presley M. Rixey, Surgeon General, U. S. N., Washington; vice presidents, Col. Jos. K. Weaver, Pennsylvania National Guards; Col. Wm. C. Gorgas, U. S. A., Washington; Surgeon Charles Poindexter Wertenbaker, Norfolk, Va.; secretary, Major James Evelyn Pilcher, Carlisle, Pa.; assistant secretary, Capt. J. Carlisle Deveries, New York.

Washington, D. C., was chosen as the next meeting place.

DR. DOCK AT TULANE.

The coming of Dr. George Dock to Tulane University Medical Department is an event over which Tulane has good reason to feel elated. Dr. Dock materially strengthens a faculty which already was the equal of many of the greatest in the land, and the fact that he will fill so important a chair as

that of medicine adds considerably to the possibilities for excellent work in that department. Although Dr. Dock is already well known in this country, and while his reputation does not demand that we endeavor to add our emendations in his behalf, nevertheless a short sketch of his career is herewith appended, copied from the New Orleans Medical and Surgical Journal.

Graduating from the medical department, University of Pennsylvania, in 1884, he became interne in St. Mary's Hospital, Philadelphia, for a year, under Drs. W. W. Keen, John B. Roberts, J. Ewing Mears and others, and studied in Leipsic, Berlin, Vienna and Frankfurt from 1885 to 1887. From 1887 to 1888 he was assistant in charge of the laboratory of clinical medicine in the University of Pennsylvania, under Drs. William Osler and John H. Musser. At the same time he was also physician to the medical dispensaries of the university hospital and St. Agnes' Hospital, in the former working in connection with Dr. William Pepper. In 1888 he became professor of pathology and clinical medicine in the Galveston Medical School. In 1891 he was appointed professor of medicine in the University of Michigan, and made important advances in the methods of teaching in that celebrated school.

As a contributor to medical literature he has won recognition and his articles may be found along with those of scientists of great renown in the later systems of medicine. He has been prominent in the medical councils of this country and of the world and as chairman of the editorial board of the Archives of Internal Medicine he is doing distinguished service to the medical profession. Again we congratulate a great school in having so great a teacher numbered among its faculty.

THE CONGRESS ON TUBERCULOSIS.

The recent International Congress on Tuberculosis held at Washington, D. C., demonstrated the fact that wonderful advances have been made in the study of tuberculosis. Indeed, the vast amount of research devoted to investigating every phase of this disease has resulted in probably more complete knowledge of it than is possessed by medical men on any other. Yet the Congress brought out the fact that there are still very considerable divergence of beliefs concerning certain important points. Medical Journals have commented quite freely on the prejudicial effect of the enunciation of the view adhered to by so great an authority as Koch that human and bovine tubercle bacilli are quite different, and that human beings are not infected by

the bovine type of tuberculosis germs. Koch claims that up to date in no case of pulmonary tuberculosis in man has the tubercle bacillus of the bovine type been definitely demonstrated. On the other hand certain authorities, of whom Theobald Smith may be mentioned as one, claim that this has actually been proven. However this may be, we shall not undertake to weigh the evidence on either side, for after various conferences and debates among those who participated in the Congress it was still found impossible to arrive at any position which even promises unanimity on this question. Still the effect of Koch's views, published far and wide as they have been, on the lay mind—which is already too prone to disregard an admitted danger because there is a possible element of doubt—is to be deplored. In the above lines we have merely reiterated what has already been well said by others; but there was another important problem presented to the Congress, and its importance was emphasized in no small degree. We refer to the overwhelming importance of education of the popular mind along proper lines. This is the real solution of the problem. Health authorities are in every case seriously handicapped when in addition to fighting disease they must also combat the ignorance, not to say superstition, of the public. First teach the people, make them realize and understand the nature of the disease and its methods of transmission and the battle will be half won. Hitherto educational efforts in the campaign to stamp out tuberculosis have been confined largely to adults. But not enough attention has been devoted to the teaching of hygiene to children. The young mind is more impressionable and quicker to learn hygienic laws than is the adult mind. Dr. G. O. Heron, of England, emphasized the essential importance of the teaching of elementary hygiene in the elementary schools. It is in the early days of a child's life that he should begin to appreciate the problem of preservation of health, and the study of hygiene should be made compulsory in every public school in our land.

From time to time a voice is raised in protest against the examinations for license to practice medicine which in several States are now severe tests. Recently, a friend of the writer who has achieved great eminence as an operator, teacher and contributor in surgery, removed from a western to an eastern State. This surgeon was obliged to spend three months with a tutor in preparation for the State examinations. It is doubtful whether any practitioner could take the examination in certain States without more

or less preliminary cramming; surely a physician with a reputation at stake could not afford to do so. Such a course to him who is advanced in a medical specialty must be regarded as a waste of time. It can hardly be argued that the eminent surgeon was any better prepared for his work by the rigorous three months tutoring. On the other hand it may be advanced that the loss of his services to patients during these three months was great, and yet it cannot be held that this is an argument against our present State examination system. State examinations, however imperfect such tests may be, are, under existing conditions, a necessary evil, and the good to the whole community far more than counterbalances for the personal losses and annoyance to the individuals who take them.

Again it has been urged that many of these examinations are not fair tests. The recent graduate, fresh from his text-books, is usually better prepared to pass them than the practitioner who has had years of study and experience. Where does the fault lie? Is it not in the subjects themselves; is it not because our knowledge of medicine consists in a series of isolated facts which have been gained piecemeal? The practitioner collects and segregates these facts, combining them into rules of conduct which he tempers with his own experience. It cannot be said that he has discovered all embracing principles. What generalizations he has made are too much encumbered with modifying clauses to be definitely expressed. The great laws of medicine have not yet been discovered. We are just beginning to group our medical facts. Think what a jumble chemistry would be without the Atomic Theory,—simply a great mass of accumulated evidence based on personal observation. The deduction of these great laws remains for future generations; for medicine the Lavoisiers, the Avogadros and the Daltons have not as yet been born.

SENESCENCE.

Army and Navy Life for September contains a most meritorious article on the long neglected subject of senescence. We have long recognized this condition but are free to admit that we did not know just how to label those victims of mental myositis ossificans, the moss on whose ideas was firmly embedded in a heavy calcareous deposit. Men with views as inelastic as their arteries, whose brains have shrunk one-third leaving behind a space occupied only by opinionated conceit, according to Woodruff, have no part in the forward movement of civilization. The sole function of the aged then is an emergency brake to be applied when some headlong youngster is

driving the machine. The trouble is the brake wants to act all the time and progress is a continuous battle with those in authority. As we have long suspected, Woodruff claims, that the mental retrograde begins early, and a man of twenty-five may have the brains of a man of seventy. Woodruff's article will be completed in the October number, after which time we will watch with interest the drubbing he will get from the Boston Phillipinos, and the other victims of cerebral arthritis deformans on whose gouty toes he has so roughly trod.

We also predict the senile frown for a young man named Augustin C. Keane, who has had the temerity to advance a few new ideas on the question of a Federal department of public health in Harper's Weekly for August 15, 1908. We do not know this young man, but we venture the opinion that he is young, with open eyes. This letter is so clear, so forceful that we print it entire on another page, (see page xxxix of our October issue) leaving the reader to judge its merits for himself. The movement for a National Bureau of Health expanded from the present Bureau as a nucleus is spreading throughout the nation, but the road to its final achievement is beset by pitfalls dug by senescent individuals to whom a new idea germinating in their brains would appear as a cataclysm of nature.

THE UNREST IN INDIA.

The Journal of Tropical Medicine and Hygiene, May 15, 1908, considering editorially the unrest in India, calls attention to the fact that aside from the alleged political causes and famine, plague is the great reason for the present native disaffection. Prof. W. R. Simpson has repeatedly stated that unless plague is eradicated in India. Great Britain is in danger of losing that colony. That the prevalence of the disease is attributed by the Indian agitators to misrule is undoubted. If this doctrine is accepted by the natives they have evidence of misrule in every town and village and in almost every household. The native of India holds the Government responsible for everything,—from failure of crops to the occurrence of disease, and if noxious insects ruin their fields or plague ravages their homes, the Government is held to be at fault and blamed accordingly. The prevalence of cholera has not the same effect. It is an endemic an "accepted" disease and no complaint is made against its continued occurrence! It is curious that we in America place no responsibility upon the Federal Government for the prevention of epidemic diseases, or their eradication once they gain a foothold. Every State is supposed to

stamp out diseases arising in its own territory, but no cognizance is taken of the habit epidemics have of disregarding State boundaries. Congress has repeatedly refused to enact laws throwing the responsibility for the health of the country as a whole on the Federal Government, although elaborate statutes have been made regarding the stamping out of epizootics, foot and mouth disease, for example. Legislation for the betterment of human sanitary conditions has not been passed, probably because the lay public value their live stock more than they do human life. We, as their medical advisers, now find it our duty to instruct the individual citizen in this regard and to urge upon our Congressmen the passage of the public health laws left pending at the close of the last session of Congress. Disease in America should not be "accepted" as is cholera in India. Most epidemics are entirely preventable and their continued occurrence is a reflection upon our civilization. We owe it to ourselves to place the expense and responsibility for the production of the health of the nation where it belongs, that is, upon the shoulders of the Federal Government. The United States Public Health and Marine-Hospital Service is an excellent nucleus around which to build up an efficient sanitary organization, and we recommend to our readers the plans for its expansion.

EXECUTIONERS AS SURGEONS.

Most of us have some knowledge of the history of the development of medicine and surgery. Yet the study of the progress of these sciences has been too much neglected, and while the majority of doctors are familiar with the great names which stand out prominently as those who have accomplished great things in the ages gone by, still it is an exception to find a physician who has availed himself of the opportunities, meagre enough it is true, to learn how the profession has existed and developed during the vicissitudes of nations and centuries. It is true that records beyond a few hundred years are scanty, and so far no very accurate epitome of these records has been made available for the student. It is unfortunate that no historian has appeared who might gather up and collate the facts of medical and surgical history into such form that there would be a reliable record at hand for him who would know of the glories of achievement of a profession than which a more noble does not exist. Frequently there appears in medical periodicals papers dealing with the lives and deeds of medical men or with certain phases of the history of medicine. These are all valuable and many of them of intense interest, but their isola-

tion is to be regretted. A recent number of the British Medical Journal contained an article which brings to light a fact of which hitherto we have seen no notice. For various reasons the physicians of the fifteenth to the seventeenth centuries looked upon surgery as beneath the dignity of a medical man, and all of us have read of the barber-surgeons of those times. In other words the practice of surgery was left to barbers and men of this class. A relic of the barber's surgical practice still exists in the striped pole or sign which today is seen before every barber shop. Their reputation as men of blood is perpetuated in the colors which adorn the familiar sign. However, we had not known that during these same times the professions of surgeons and executioner were frequently combined in the same person. The article to which we refer says that in Denmark on July 24, 1579, a license was issued by Frederick II. to Anders Freimut, executioner of Copenhagen, granting him the right to set bones and treat old wounds; he was expressly forbidden to meddle with recent wounds. In 1609 it is recorded in the municipal archives of Copenhagen that Gaspar, the hangman, had received 4 *rigsdalers* for the cure of two sick children in the infirmary. In 1638, Christian IV. summoned the executioner of Gluckstadt in Holstein to examine the diseased foot of the Crown Prince. In a letter addressed to Ole Worm, a leading Danish physician of the day, Henry Koster, physician-in-ordinary to the King, complains bitterly of the slight thus put upon him. He says that for two whole months the hangman, "who is as fit to treat the case as an ass is to play the lyre," had the case in hand, and the doctor was not asked his advice. . . . Again, in 1681 Christian V. gave a fee of 200 *rigsdalers* to the Copenhagen hangman for curing the leg of a page. . . . In 1732 Bergen, an executioner in Norway, was authorized by royal decree to practice surgery.

Even up to the early years of the nineteenth century this extraordinary association of surgery with the last penalty of the law continued. Erik Petersen, who was appointed public executioner at Trondhjem in 1796, served as surgeon to an infantry regiment in the war with Sweden, and retired in 1814 with the rank of surgeon-major. Frederick I. of Prussia chose his favorite hangman, Coblenz, to be his physician-in-ordinary. It might be suspected that this peculiar combination of functions had its origin in a satirical view of the art of healing; but in the records we have quoted we can trace nothing of the kind. Perhaps the executioner drove a trade in human fat and other things sup-

posed to possess marvelous healing properties; he may thus have come to be credited with skill in healing, though the association surely represents the lowest degree to which the surgeon has ever fallen in public esteem and social position.

ANOTHER TYPHOID CARRIER

We have quite ceased to feel the least degree of surprise when we read a report of the discovery of some individual who having suffered an attack of typhoid fever and having recovered apparently completely, yet harbors typhoid bacilli which are quite capable of infecting other people. One of the most recent, and remarkable too in some respects, has featured exclusively throughout the secular press of the country during the past few weeks.

An investigation made by officers of the Public Health and Marine Hospital Service into a recent outbreak of that disease in Georgetown, or West Washington, D. C., disclosed the fact that a woman milker at a neighboring dairy who had had typhoid fever eighteen years ago, was the responsible agent in spreading the disease. With one exception this is the first considerable outbreak of typhoid fever in the United States, traced through milk, to such a carrier. Examination disclosed the fact that large numbers of typhoid bacilli still existed in the dejecta of the woman, although she apparently was enjoying good health.

It is believed that at least two per cent. of all recovered cases of typhoid fever become bacilli carriers for a longer or shorter periods.

PELLAGRA CONFERENCE.

The conference on Pellagra held Thursday, Oct. 29 at the State Hospital for the Insane at Columbia, S. C., under the auspices of the South Carolina State Board of Health, in our opinion, marks an epoch in the progress of medicine in the South. There can be no question but that the disease which furnished a subject for this conference has existed in this section of our country perhaps longer than has been realized. And it is further certain that it is presenting to the people of the Southern States a problem of more serious import than many are prepared to believe. But the fact that it has been recognized by our own medical men and its presence definitely proven shows that there are physicians among us who must be credited with abilities and with actual accomplishments that place them on a par with those whose names are sounded even beyond the seas. It is an exceedingly hopeful omen that Southern doctors are giving evidence of a more scientific spirit and showing a tendency to attempt research independently and along

original lines. In the work which is being attempted toward elucidating the problem of pellagra it is hoped that more positive knowledge will be obtained, for in spite of the fact that the disease has existed for many years in Southern Europe and vast numbers of people are afflicted, still it must be confessed that very little is really known as to the nature of the disease. Text-books, as a rule, either omit all mention of it, or at best they devote but scant space to a discussion of pellagra. That, however, is but natural, in American text-books at least, for since its presence has hitherto never been suspected and the malady was looked upon as entirely foreign, authors have not deemed it necessary to burden their pages with description of a medical rarity or curiosity.

The doctors who assembled in Columbia for the purpose of discussing this problem are those who have already achieved no little notoriety because of their activity in investigating the disease. In addition quite a number of physicians attended the conference, both on account of their own personal interest and observation and because of their desire to profit from mutual interchange of thought. About seventy physicians registered their attendance and a large number of laymen also were present.

The South Carolina State Board of Health is to be commended for its prompt action regarding pellagra. It seems that the purpose of the Board of Health was to bring out some definite ideas as to the proper steps to take towards prevention, and as a result of the deliberations the board of regents of the State hospital, at a specially called meeting, passed resolutions directing the attention of the board of health to the necessity of the whole pellagra problem being placed in the hands of expert pathologists and bacteriologists. General practitioners as a rule are not qualified for such investigations. Therefore, it is the regent's desire to place the matter in the hands of some such scientific body as the United States Public Health and Marine Hospital Service.

Two other steps were taken, of interest to the public. One, the appointment of a committee to arrange for the publication and distribution of the transactions of the conference; the other a committee to decide whether or not it is advisable to form a society in the South Atlantic and Gulf States for the study of tropical diseases.

The State board of health has, therefore, good reason to be encouraged in this special line of work they have undertaken.

We publish herewith the program as arranged and carried out:

Invocation, Rev. S. M. Smith, D. D.

Welcome to visitors, Gov. Ansel on behalf of the State, and Dr. W. W. Ray on behalf of the board of regents of the asylum.

Remarks upon pellagra as seen in Italy—Senator Tillman.

Clinic: "Examination of Cases in the Hospital and Cases Presented"—By Dr. Neuffer, of Abbeville, Dr. Frontis, of Ridge Spring, and others.

Discussion on the causation of pellagra:

1. "Theories of Its Etiology"—M. Moore, M. D., of Augusta.

2. "Some Problems in the Study of Its Etiology"—Edward J. Wood, M. D., Wilmington, N. C.

3. "The Maize Theory of the Italians"—J. J. Watson, M. D., Columbia.

4. "The Rumanian Theory"—J. L. Thompson, M. D., State Hospital, Columbia.

5. "Personal Experience with Some Cases of Mental and Nervous Diseases Showing the Pellagra Syndrome"—I. M. Taylor, M. D., superintendent Broadoaks Sanitarium, Morganton, N. C.

6. "Observations on Pellagra in this Country with Special Reference to Pellagrous Insanity"—John M. McCampbell, M. D., superintendent State Hospital for Insane, Morganton, N. C.

7. "The Diagnosis and Treatment of Pellagra and Pellagrous Insanity"—J. W. Babcock, M. D., superintendent State Hospital for Insane, Columbia.

The presence of Passed Assistant Surgeon C. H. Lavinder, of the United States Public Health and Marine Hospital Service indicates the interest felt by the national health authorities. Dr. Lavinder has given special study to the form of pellagra prevalent about Wilmington, N. C., and has embodied the results of these studies in a monograph recently published by his department. He concludes that what is true pellagra has appeared in the Southern States more or less recently and that this disease may be quite prevalent but unrecognized. Considering the serious nature and epidemic character of pellagra his purpose in supplying his monograph is to emphasize the importance of knowledge concerning pellagra to the American physician and especially to the practitioner in the Southern States.

Dr. M. R. Powers, of Clemson College, State Veterinarian, presented a paper on "The Supposed Relationship of Damaged Grain to Epizootic Cerebro-Spinal Meningitis (Blind Staggers) of Horses" which aroused very considerable interest, since it is generally believed that this disease in horses and pellagra in man certainly are very closely related, if not indeed identical.

We await with pleasurable anticipation

the publication of a full report of the transactions of this conference.

FOOD INSPECTION IN GREENVILLE, S. C.

On October 10th the new rules and regulations governing the sale and handling of milk, food and meats in Greenville, S. C., were inaugurated by the Board of Health of that city. Dr. Clarence F. Smith, the newly appointed inspector, has already enforced the law to that extent that the dairymen have greatly improved their plants, and the people are thus insured a supply of pure, clean, wholesome milk. The examination by the inspector of every animal slaughtered for food will guard against the sale of diseased and tainted meats. An abattoir is to be established at which all animals killed for food will have to be butchered. Greenville is an enterprising, up-to-date town, and the place is deserving of the highest praise because of this spirit of progressiveness. The appointment of Dr. Smith, a man who is eminently qualified for the position, likewise is evidence of the good judgment of Greenville.

Editorial News Items.

Prevent Spread of Tuberculosis in South Carolina.

The State board of health held a meeting recently and several matters of interest to the public were brought up.

The State board will arrange for an exhibit at the State fair to interest the public on the matter of fighting the spread of tuberculosis, and distribute pamphlets on its spread and prevention. The exhibit will not be very large, but it is the beginning of a campaign against the spread of the disease. Along this line it was announced that a meeting of a special committee of a special committee of the State Medical association would be held during the week for the purpose of organizing and planning a campaign against tuberculosis.

The Following Letter Explains Itself:

Roaring River, N. C., Oct. 29, 1908.
Dr. E. C. Register, Charlotte, N. C.:

Dear Sir: We need a physician to locate at this place. Your name has been given us as one who probably knows of some one who would locate with us. We have one of the best locations in the State and a good man can do well here. We have four mercantile establishments, three manufacturing plants and a large country territory. We also have good bridges over all streams of any size; we are located on the Southern Railway, ten miles east of North Wilkesboro, at which is the closest physician of

good standing. For further reference in regard to this location, write Drs. W. P. Horton and J. H. Gilreath of North Wilkesboro, and Messrs. C. H. Greeuwood, R. L. Church, H. E. Parks and L. J. Salmons of this place. We appreciate any service you can render us in securing a physician. I enclose stamped envelope for reply.

Your, very truly,

T. D. McNEIL.

Malaria Decreases on Isthmus.

Dr. W. C. Gorgas, chief sanitary officer on the isthmian canal zone, reports that cases of malaria among employes is showing a material decrease. During September of last year there were admitted to the hospitals 1,811 cases, while this year there were in September only 1,810 cases of malaria. Within the past two years, he states, there has been no case of yellow fever or bubonic plague in the canal zone.

Dr. Thos. W. Edmunds.

Dr. Thos. W. Edmunds, formerly of Reidsville, Va., has moved to Danville, Va. where he has leased offices and a residence. His specialty is in diseases of the eye, ear, nose and throat. Dr. Edmunds was educated in Baltimore and for some time practiced medicine as resident physicians at the Mecklenburg Sanitarium, Chase City, Va. Afterward he determined to enter special practice and prepared himself for that work.

At the last meeting of the Mississippi Valley Medical Association the following officers were elected for the ensuing year;

Drs. J. A. Witherspoon; Nashville, Tenn., President; Louis Frank, Louisville, Ky., First Vice-President; Albert E. Sterne, Indianapolis, Ind., Second Vice-President; S. C. Stanton, Chicago, Ill., Treasurer, and Henry Enos Tulley, Louisville, Ky., Secretary. The next annual meeting will be held in St. Louis, Mo., October, 1909.

Lawsuit Between Two Physicians.

According to newspaper reports, a suit is about to be brought against Dr. E. M. Yount, of Statesville, by Dr. L. V. Cloaninger, of Shiloh, a small town about seven miles from Statesville.

The controversy has been pending for some time. Dr. Yount formerly practiced medicine in Shiloh, but when he moved to Statesville he sold his practice to Dr. Cloaninger, who was then located at Elmwood. It was agreed, according to Dr. Cloaninger, that Dr. Yount was not to make any professional visits in his old territory. Dr. Cloaninger claims that Dr. Yount has not kept his contract.

Rex Hospital, Raleigh, N. C.

This institution is to be repaired and enlarged at a cost of about \$40,000. The trustees have acquired more land adjoining the old hospital site. This will give more space for the new buildings. The indications are that this will be one of the best hospitals, when completed, in this section of the country. It will have an annex, it is understood, for the use of the State Medical College, which now seems to be intimately associated with that institution. Dr. Hubert Royster has made a gift of \$1,000 for this new enterprise. This gift, however, is on the condition that all the other physicians at Raleigh combined will contribute the same amount.

Ten Young Nurses Graduate at St. Luke's Hospital, Richmond, Va.

On Tuesday night, Oct. 27th, ten young ladies were graduated from the training school for nurses at St. Luke's Hospital, Richmond, Va.

The graduating exercises were held in the roof garden over the new annex. Rev. John H. Dickinson offered prayer. Dr. Stuart McGuire, president of the hospital made a brief complimentary address and introduced Dr. Wm. S. Gordon, speaker of the evening. Dr. Gordon delivered his address in verse, making many delightful hits and quips at the nurses. His pleasing manner and appropriate words to the young ladies will long be remembered pleasantly by all who were fortunate enough to be present at the occasion. Dr. Loundes W. Peple, assistant surgeon at the institution; administered the famous oath of Hippocrates, the great physician of the ancient Greeks.

Those who graduated were: Misses Eleanor Gallagher, Waynesboro; Rachel Reams, Richmond; Louise Marith, Glade Springs; Denie Whitehead, Roseland; Carter Peyton, Pulaski; Elizabeth Armistead, Upperville; Lelia Bleecker, South Boston; Josephine Allen, Spring Garden; Nellie Whitehead, Richmond, and Juliette Johnstone, Danville.

Department of Pharmacy of Tulane University.

The department of pharmacy of Tulane University as an independent department began its first session of work October 5th. The faculty is composed of the following gentlemen: Edwin B. Craighead, president of the university; Isidore Dyer, dean of pharmacy department; A. L. Metz, professor of chemistry and medical jurisprudence; L. W. Wilkinson, professor of industrial chemistry; B. P. Caldwell, associate professor of chemistry; J. T. Halsey,

professor of materia medica and pharmacology; R. S. Cocks, professor of botany and pharmacognosy; Gustave Mann, professor of physiology; G. S. Brown, associate professor of pharmacy.

The entrance requirements for the department of pharmacy for the present are the same as those for the medical department. That is the equivalent of a four-year high school course. The degree of master of pharmacy, formerly conferred by the university, will be superseded by the degree of pharmaceutical chemist. The courses in hygiene in the pharmacy department will be identical with those of the medical department.

The National Health.

Dr. Charles A. L. Reed, of Cincinnati, chairman of the national committee on medical legislation of the American Medical Association, in a speech before the New York Academy of Medicine, recently said that President Roosevelt had authorized him to state that he would recommend to congress in his next message a law to conserve the public health such as had been recommended by the American Medical Association. Both of the great national parties are in sympathy with the movement, and had so declared in their platforms.

"It now devolves," says Dr. Reed, "upon the 130,000 doctors in the United States not only to back the President in his work, but to anticipate those actions in a persistent campaign in behalf of this fundamental feature of the public welfare."

Dr. Charles C. Orr announces that after November 1st, he will be associated with Dr. Martin L. Steven, of Asheville, N. C. They will make diseases of the lungs their specialty. Both these doctors are prominent men and no doubt the combination will be advantageous.

Atlantic Coast Line Railway Surgeons.

The fourth annual convention of the Association of Surgeons of the Atlantic Coast Line Railway met in Jacksonville, Fla., Oct. 20th, in the board of trade auditorium.

In the absence of President P. J. Thomas of Wilmington, N. C., Vice-President J. H. McIntosh of Columbia, S. C., presided.

The officers present were, Second Vice-President J. H. Pittman of Jacksonville; Dr. E. B. Quillen, assistant chief surgeon, acting secretary and treasurer in the absence of Dr. M. Monroe Moran of Pinners Point, Va., and Dr. G. G. Thomas of Wilmington, and Dr. S. Nicholson of Washington, N. C., members of the executive committee.

The convention was opened with a prayer

by Rev. John T. Boone, after which Hon. William H. Sebring, Mayor of Jacksonville, in an eloquent and happy manner, delivered the address of welcome on behalf of the city. He paid a high tribute to the surgical profession, and in conclusion extended the freedom of the city to the visitors.

Dr. G. G. Thomas, chief surgeon of the Atlantic Coast Line, replied to the address of welcome of the mayor, thanking him for his complimentary remarks, and assuring him that his happy felicitations were warmly appreciated by every member of the association.

Mr. W. E. Kay, assistant general counsel, addressed the convention upon the subject, "The Local Surgeon and the Transportation Department." In the course of his address Mr. Kay outlined the policy of the Atlantic Coast Line from the inception to the present time.

He especially urged the surgeons to always be fair and accurate in their statements in reporting accidents and injuries and to avoid all attempts tending to conceal true conditions as they exist.

The following list includes some of the papers read by different members of the association:

"Report of a Case of Typhoid Fever, with Intestinal Perforation, Operation and Recovery," by Dr. Dr. E. B. Quillen, assistant chief surgeon; "Fractures of the Base of the Skull," by Dr. J. W. Alsobrook, Plant City; "Report of a Case in Court," by Dr. E. L. Patterson of Barnwell, S. C.; "Surgical Indications for the Operation of Gastro-Esterostomy," by Dr. James E. Boyd of this city, and "Traumatism Involving Joints," by Dr. C. R. Oglesby of Waycross. This paper was read by Dr. J. E. Lee in the absence of Dr. Oglesby, who was unable to attend.

All these papers were freely discussed by the open convention, and much good thereby resulted in the interchanging of opinions, ideas, experiences and theories.

After one session in Jacksonville, a somewhat unusual and original idea was carried out when the members of the association and their wives left on the Clyde river steamer, City of Jacksonville, for Sanford.

On board the steamer the society was tendered an elaborate dinner, after which a regular session was held at which the annual election of officers resulted as follows:

President, J. H. McIntosh, of Columbia, S. C.

Vice-President, Dr. J. H. Pittman (re-elected), Jacksonville.

Secretary and Treasurer, Dr. A. C. Hoyt, of Waycross, Ga.

D. J. E. Boyd, of Jacksonville, was elect-

ed a member of the executive committee from Florida.

The association decided to hold the next annual meeting in Wilmington, N. C.

About sixty members of the association were in attendance, and in every way it is said to have been a most interesting and successful meeting. The last session was held in Sanford, on the morning of Oct. 21st, after which the convention adjourned *sine die*.

Meeting of the S. A. L. Railway Surgeons

The seventh annual meeting of the Association of Seaboard Air Line Railway Surgeons was held in Columbia, S. C., Oct. 27 and 28. It was particularly fortunate that this convention was held at the time and place it was. Both were auspicious in that Columbia during the same week was the scene of the interesting conference on Pellagra held at the State Hospital for the Insane. A large number of physicians were in attendance and the meetings were pleasant and profitable.

Mayor W. S. Reamer, in a most happy speech, welcomed the gentlemen to the city. Dr. E. D. Richardson of Atlanta, responded to this speech.

Dr. L. S. Oppenheimer of Tampa, Fla., president of the association, made a most excellent address, which was pronounced a treat by all who heard it.

Mr. W. L. Stanley of Portsmouth, Va., claim agent of the Seaboard Air Line, made an address to the physicians which was much enjoyed.

At the afternoon session of the first day the following attractive programme was given:

"Forty-six Punctures Through the Abdominal Walls Into the Intestines, with Impunity,"—Dr. J. E. Malone, Louisburg, N. C.

To Open Discussion—Dr. W. F. McCurdy, Richland, Pa.

"Report of Case of Railway Surgery"—Dr. H. E. Palmer, Tallahassee, Fla.

To Open Discussion—Dr. J. L. Kennedy, Manassas, Ga.

"Instructions to Railway Employes in care of Injured Persons Before Arrival of Surgeons"—Dr. T. B. Twitty, Rutherford, N. C.

To Open Discussion—Dr. J. F. Bryant, Franklin, Va.

Other papers presented were;

"Septicemia with Thrombosis, Pneumonia and Death"—Dr. J. W. Corbett, Camden.

To open discussion—Dr. H. C. Dozier, Ocala, Fla.

"Report of Interesting Cases"—Dr. S. B. Little, Colbert, Ga.

To open discussion—Dr. J. H. Miller, Cross Hill.

"Penetrating Wounds of the Abdomen"—Dr. L. C. Rooter, Madison, Fla.

To open discussion—Dr. Lynn McIver, Sanford, N. C.

Among the physicians who addressed the society were: Dr. E. D. Richardson, Atlanta, Ga.; Dr. H. T. Chapin, Pittsboro, N. C.; Dr. Alex. H. McLeod, Aberdeen, N. C.; Dr. J. D. Ingram, McBee.

The annual election of officers resulted as follows:

President—Dr. William Weston, Columbia, S. C.

First vice-president—Dr. J. G. Dean, Dawson, Ga.

Second vice-president—Dr. J. W. Smith, Branchville, Va.

Third vice-president—Dr. R. T. Walker, Florida.

Secretary-treasurer—Dr. J. W. Palmer, Alley, Ga.

Dr. Weston's election is a matter in which his friends find particular gratification. He thoroughly deserves the honor and will wear it worthily. The next meeting of the association will be held in Raleigh, N. C.

Elected Attending Surgeon to Grady Hospital

Dr. Willis Jones, of Atlanta, Ga., at a recent meeting of the medical board of the Grady hospital was elected attending surgeon to Grady hospital to succeed Dr. William Perrin Nicholson, who tendered his resignation after eighteen years of continuous service.

Dr. Jones is considered the coming surgeon of Atlanta. He was graduated at the University of Georgia in 1896, and at the College of Physicians and Surgeons in New York in 1901. He served three years with distinction on the surgical staff of Bellevue hospital in New York.

Four and a half years ago he came to Atlanta to begin the practice of surgery, and has been remarkably successful in this chosen profession. Though yet a young man, he is considered a surgeon of unusual skill, efficiency and ability. Dr. Jones is 33 years of age, and was born in Newnan, Ga.

Dr. Nicolson resigns after eighteen years of continuous service, and as he is considered one of the most skilled and successful surgeons in the South the succession to his position as attending surgeon by Dr. Jones is a distinct honor.

Bibb County Doctors Meet at Blocton.

The Bibb County, Alabama, Medical Society met at Blocton, Oct. 7th, in a spec-

ial public session at which the subject of tuberculosis and how to prevent the spread of this disease was discussed.

Many Students Enter.

Dr. Isadore Dyer, dean of the medical department of Tulane University, New Orleans, La., has stated that he was more than pleased with the enrollment of students this year, as it presaged a much larger class than last year. Up to the same time last year only 259 had been entered. He looked forward to one of the largest and best classes to be graduated this season.

Norfolk Medical Society Elects Officers

The Norfolk Medical Society, Norfolk, Va., at a meeting held Oct. 13th, elected the following officers: President, Dr. R. L. Harris; Vice-Presidents, Drs. S. H. Graves, and Joseph Grice; Secretary, Dr. R. L. Payne, Jr.; Treasurer, Dr. D. Lee Hirschler.—Times-Dispatch,

Southern Medical Association

The Southern Medical Association will meet in Atlanta, Ga., on November 10; 11 and 12.

At the opening meeting, Governor Hoke Smith will deliver the welcoming address on behalf of the city and State, and Dr. J. C. Olmstead on behalf of the physicians. The reply will be made by Dr. Savage of Nashville, Tenn.

Dr. Aulick Burke, a graduate of the Medical College of Virginia in the class of 1907, who has been an interne of St. Vincent's Hospital, in Norfolk, Va., has opened an office for the practice of medicine in Petersburg, Va.

Meeting of the Tenth District Medical Society at Waynesville, N. C.]

The fifth semi-annual meeting of the Tenth District Medical Society of North Carolina, was held at Waynesville, N. C., in the handsome parlors of the Waynesville Club on Oct. 28 and 29, 1908.

An evening session on the 28th, followed by a morning session the following day was held, at which several papers and clinical reports were had followed by interesting discussions.

The attendance was good and the visitors report an enjoyable session. The social features of the meeting were especially attractive, the Waynesville Club extending its courtesies to the visitors while the entire society with more than one hundred invited guests of Dr. and Mrs. J. Howell Way at a reception in their handsome home on South Main St. Wednesday evening.

The next session was voted to convene at Asheville in April, 1909.

Resolutions appreciative of the courtesies extended were unanimously adopted by the society. At the closing session the following were elected officers for the ensuing year:

President, Dr. J. Howell Way, Waynesville; Vice-President, Dr. S. C. Heighway, Murphy; Secretary, Dr. Thos. E. W. Brown, Asheville.

Seventh District Medical Society of Cartersville, Ga.

The semi-annual session of the Seventh District Medical Association was held in the court house on October 14. Dr. McRae, of Atlanta, and Dr. West, of Chattanooga, were among the prominent out-of-the-district guests.

The officers of the Seventh District Medical Association are: R. P. Cox, Rome, president; C. F. McClain, Calhoun, vice-president; H. L. Erwin, Dalton, secretary and treasurer.

The following papers were read:

A report of nineteen cases of intubation of the larynx, C. F. McClain.

"The Practitioner and the Surgeon," J. W. Curry, Rome,

T. D. Coleman, president of the State Association of Georgia, made an address.

Floyd W. McRae also addressed the convention.

Tenth District Doctors of Georgia.

The physicians comprising the Tenth District Medical Society met in Augusta Oct. 30. Dr. H. H. Muehl delivered the welcome address, and Dr. J. R. Beall, of Blythe, responded. Among the features of the program were:

Address of the president, Dr. E. D. Coleman, of Augusta; Invocation, by Rev. Howard T. Cree, D. D.; address on gastric motility, by W. R. Houston, M. D., Atlanta; discussion on typhoid fever, led by Dr. R. J. Miller, of Tennille; the diagnosis of typhoid perforations, by Dr. N. M. Moore, of Augusta; report on an interesting case, by Dr. W. W. Pilcher, of Warrenton; litholopaxy, by Dr. W. H. Goodrich, of Augusta; discussion on treatment of pneumonia, by Dr. F. H. Phillips, of Harlem; report of a case of cerebral abscess, by Dr. G. R. Maner, of Warrenton; some unusual obstetrical cases, by Dr. A. J. Kilpatrick, Augusta.

The afternoon session concluded with a table d'hôtel lunch for visitors at the Commercial Club. In the evening the society was the guests of the Richmond County Medical Society at a banquet served at the Genesta hotel.

Medical Board Exonerated.

The Texas Homeopathic Medical Association, at its twenty-fourth annual session held in San Antonio, Texas, adopted resolutions exonerating the State Medical Board of blame in the alleged wholesale issuance of physicians' licenses. A petition was prepared to the thirty-first Legislature recommending the establishment of a chair of homeopathic therapeutics and materia medica in the State University Medical Department at Galveston.

Yellow Fever in Havana.

Recent reports having failed to indicate the presence of yellow fever in Havana, the public health and marine hospital service has removed the quarantine which was established against that city a few weeks ago. The quarantine against the province of Santiago still remains intact.

The Mercy General Hospital, Charlotte, N. C.

The graduating exercises of the training school for nurses operated in connection with the Mercy General Hospital took place Oct. 20th. Sister Mary Dolores, Sister Mary Bride, Miss Farley and Miss Finch constituted the class which has just completed its course of instruction. The exercises were extremely simple, the Rt. Rev. Bishop Haid tendering the diplomas at an informal supper at the Catholic rectory. The bishop and Father Joseph congratulated the graduates and in appropriate words called to their minds the duties and the beauty of their occupation.

The Mercy General Hospital of Charlotte thus enters upon a new and greater era of activity. The Sisters of Mercy will be in full and complete charge of the institution. Sister Mary Bride succeeds Miss Robinson, who has for so long a time satisfactorily filled the position of superintendent. Sister Dolores will continue as superior of the institution, a position which she has held from the first.

Dr. Christian, Dean of Harvard School.

Dr. Henry Asbury Christian was recently elected dean of Harvard School. He is a native of Lynchburg, Va., and has a brilliant record as an investigator, clinician and administrative officer. He is a graduate of Randolph-Macon College and of Johns Hopkins University; also of Harvard Medical and the Boston City Hospital.

Dr. J. W. Moore.

Dr. John Miller Moore, of South Carolina who has been confined in an asylum in Paris for the insane, was discharged from

that institution recently and placed in the charge of his brother-in-law E. H. Fullenwider, who has taken him back to his old home in South Carolina.

Richmond Academy of Medicine.

Dr. W. L. Peple, associate surgeon at St. Luke's hospital, read a paper on the diagnosis and treatment of certain forms of tuberculosis at a meeting of the Richmond Academy of Medicine and Surgery, Oct. 13, at the rooms of the Traveler's Protective Association. The paper was discussed by Dr. Robert C. Bryan; Dr. Lewis C. Boshier, president of the Memorial Hospital Corporation, read a paper on diagnosis and treatment of suppurative bone diseases, which was discussed by Dr. William P. Matthews.

Iredell-Alexander Medical Society.

The Iredell-Alexander Medical Society, composed of physicians of Iredell and Alexander counties, as the name indicates, met in regular session at the court house at Statesville, N. C., Oct. 6th, with an unusually large attendance. The meeting was not only unusually largely attended, but was also unusually interesting. The annual election of officers was held with the following result: Dr. T. E. Anderson, of Statesville, re-elected president; Dr. E. A. Hall, vice-president; Dr. J. E. McLaughlin, of Statesville, re-elected secretary and treasurer. Dr. McLaughlin was elected a delegate to the next meeting of the North Carolina Medical Society, with Dr. S. W. Stevenson, of Mooresville, as alternate.

An instructive feature of the meeting was the reading of an excellent paper on "The Pancreas, Its Functions and Diseases," by Dr. Albert Houck, of Statesville.

Dr. Spilman Assistant Surgeon.

It was announced at the Adjutant-General's office Oct. 16, that Dr. Robert S. Spilman, of Norfolk, Va., had been made captain and assistant surgeon of the Fourth Regiment, with headquarters at Norfolk.

Medical College of Birmingham, Ala.

The Birmingham Medical College began its new term Sept. 30. Dr. G. H. Macon, of Howard College, Prof. J. H. Phillips, superintendent of the Birmingham public schools, Dr. J. W. Stagg, of the First Presbyterian Church, and Dr. E. H. Sholl, a local physician, delivered addresses. Two hundred students were enrolled, coming from all parts of the State and Mississippi.

Marriages.

Dr. James Lawrence Orr.—On Wednesday afternoon of 3:30 o'clock, Oct. 14th, at Christ's Church at Greenville, S. C., was solemnized the marriage of Miss Frederica Cleveland and Dr. James Lawrence Orr, both of Greenville. Dr. Orr is a very highly esteemed young physician of his community. Immediately after the ceremony the young couple left for a few weeks trip to New York and other points.

Dr. Edgar Dismukes Crawford, of Atlanta, Ga., and Miss Carol Gray, of College Park, Ga., were married Oct. 28, at College Park. Dr. Crawford is a prominent specialist of Atlanta, and has many friends both professional and personal throughout the South.

Dr. M. W. Murray.—Dr. M. W. Murray, of New Decatur, Ala., was married to Miss Celia Buckheit, also of that city, on Oct. 27th, at the home of the bride's parents, Mr. and Mrs. Geo. F. Buckheit.

Dr. Murray is one of the best known and most popular physicians of the Decatur. He is a native of Canada, but has lived in New Decatur for more than 16 years. He was at one time mayor of that city. He is a graduate of McGill University, Medical Department, of Montreal, Quebec, class 1890.

Dr. Chas. Manly Walters.—A pretty home wedding occurred at the residence of Mr. W. J. Thomas, of Burlington, N. C., on October 27th, when his daughter, Selma Anne, was united in marriage to Dr. Charles Manly Walters, of Union Ridge, N. C.

Dr. Walters is a native of Alamance county and is a very bright and promising young physician. He graduated from the University of Maryland, Baltimore Md. this year and located at Union Ridge, where he has already built up a very nice practice and enviable reputation.

Dr. Wade Chambliss.—Calvary Episcopal Church, Americus, Ga., was the scene of a very beautiful wedding on Oct. 14th, when the marriage of Miss Annie Pearl Scroggs and Dr. Wade Chambliss was consummated. Dr. Chambliss has resided in Americus for several years and is very prominent in his profession there. He is city physician.

Dr. Eugene Young Willis, of Montgomery, West Va., was married to Miss Mary Clodia Harris, daughter of Mr. and Mrs. J. M. Harris, of Lignum, Va., on Oct. 14th, at Lael Baptist church.

Dr. Willis is a prominent young physician of Montgomery, where he has practiced for

several years. He is a graduate of the Medical College of Virginia, Richmond, Va., class 1903.

Deaths.

Dr. C. L. Hamby, of Myers, N. C., died in his buggy in North Wilkesboro, on Oct. 20. He was held in the highest esteem and had a very large practice.

Dr. H. M. Rogers, of Harrisonburg, Va., died at his home on Oct. 3rd of Bright's Disease, from which he had suffered since last January.

Dr. Rogers was born at Mt. Solon, Va., in 1860. He was educated in the graded schools, then studied medicine at the University of Virginia and the College of Physicians and Surgeons in Baltimore. He was a physician of wide practice and one of the most prominent citizens of Rockingham county. For the past six years he was a member of the Virginia House of Delegates. He was also prominent in church and lodge affairs.

Dr. J. M. McLaughlin, of Springville, Ala., died on Oct. 25th, aged 72 years. He was one of the best known physicians of St. Clair county, where for forty years he practiced his profession.

Dr. Frank B. Hill, of Greenville, Ga., died on Oct. 13th at his home, of typhoid fever, after an illness of several weeks.

Dr. Thomas Boyd Meacham, of Fort Mill, S. C., died at his home on Oct. 25th, after an illness of two weeks. He had, however, been in declining health for more than a year.

Dr. Meacham was born in Jackson, Tenn., January 3rd, 1836. When quite a young man he applied himself to the study of medicine and took his first course of lectures in the Medical College of New York City, and later graduated from the South Carolina Medical College, of Charleston, S. C., in 1860. When the civil war came on he was the first to volunteer, going out as first lieutenant of a Rock Hill Company, known as the "White Guard," of which E. A. Hutchinson was captain. Later he was made captain. His health broke down under the exacting demands of army service and he returned home. When he regained his strength sufficiently he practiced his profession until the close of the war. After the war he continued his practice in York county for a year. He then moved to Charlotte, N. C., where for a short period he was engaged in the mercantile business. He then moved to Pineville, N. C., where for seventeen years he practiced medicine, going from there to For-

Mill in 1891, where he conducted a drug business and practiced his profession. For the last few years, however, on account of failing health he did very little practice. He was a very highly respected citizen of Port Mill, and his loss will be greatly felt in the community.

Dr. Frederick Sale, of Bedford City, Va., died at the home of his father, Dr. Jno. W. Sale, on the night of October 5th. He had been in declining health for a long time, on account of which he has not practiced for a number of years. He was a young man of bright mind and splendidly equipped for his profession. He was a graduate of the Hospital College of Medicine, Louisville, Ky., class 1882.

Dr. A. S. Hydrick, of Orangeburg, S. C., died at his home early Saturday morning, Oct. 10th, from a stroke of paralysis which he received one week before, and from which he never rallied, nor was he able to speak a word.

Dr. Hydrick for many years practiced in Orangeburg, having graduated from the University of South Carolina, Columbia, S. C., in 1873. He was a very prominent physician and highly esteemed citizen. As a mark of respect to him the pupils of the city schools were dismissed several hours before the usual time on the day that his death occurred. He was born in Orangeburg county November 11, 1849. He studied in the county schools until he entered the medical university from which he graduated. On January 21st, 1874, he was married to Miss Henrietta Livingston, of Orangeburg county.

Dr. Hydrick was a Royal Arch Mason and was vice-president of the Orangeburg County Medical Society. He was also a member of the Board of trustees of the city schools of Orangeburg.

Dr. D. L. Desaussure, one of Camden's oldest and most highly respected citizens, died at his home in Camden, S. C., about midnight of October 15th. His death was very unexpected, as he had been well up to the time of his demise. The immediate cause of his death was edema of the lungs.

Dr. Desaussure was a graduate of the Medical College of the State of South Carolina, Charleston, S. C., class 1857. He was a surgeon in the Confederate Army.

Dr. B. P. Alston—We grieve to chronicle the death, on October 31, of Dr. Bennett Perry Alston at his home in Epson, Vance county. Born in 1846 Dr. Alston was a native of Warren county. In 1868 he was graduated from the University of Maryland Medical School, since which time he has

practiced his profession in the community where his life ended. Since the time of his graduation he was a member of the North Carolina State Medical Society and of the Vance County Medical Society. In his death his community and his State lose a valued citizen and a capable, kindly doctor.

Dr. L. C. Nesbitt, of Woodruff, S. C., died at his home on October 10th, aged eighty-two years. Dr. Nesbitt was one of the oldest and most highly respected citizens of Spartanburg county, where he practiced medicine for over fifty-years.

Dr. Shirley Bragg, of Montgomery, Ala., State jail inspector, was found dead in his room on October 29th. from a self-inflicted pistol shot. His act was engendered by despondency caused by suffering from an incurable disease, and was, from all indications, committed in a spontaneous fit of gloom. He had been for months in a condition of physical breakdown, from extreme nervous and organic disease, and had been under the treatment of a physician.

Dr. Bragg was born near Lowndesboro, Ala., on November 3, 1853. He was the son of Mr. John Bragg, who was for many years prominent in Alabama public life, and was the nephew of General Braxton Bragg, of Civil War fame. He was educated at Spring Hill College, Mobile, Ala., and at St. Louis University, St. Louis, Mo. Later he received a diploma from the Medical Department of the University of Alabama, Mobile. Dr. Bragg was a man well fitted for his profession. Since 1901 he served in the capacity of Inspector of the Convict Board of the State of Alabama, being elected president of the board in 1905. Prior to 1901 he was never an incumbent of public office, having been a practitioner of medicine in Montgomery since 1896. Prior to that time he practiced in Lowndes county.

Review of Southern Medical Literature

New Orleans Medical and Surgical Journal,
September, 1908.

Instructions which Should be Given a Tuberculous Patient Making a Change of Climate.—Dr. Robt. B. Homan says that one reason so many people suffer relapses when they return to their former homes is that they did not remain in the country sufficiently long. We frequently see people who improve almost from the day they come to this climate, and who in a few months undoubtedly have their trouble arrested, but it is only arrested, and if they

return to an unfavorable climate then, they are pretty certain to begin to grow worse, and upon returning to the climate where they were benefited before they either fail to improve at all or the improvement is much less rapid than before. No consumptive should expect to get any permanent result from a stay of less than a year, and more often from two to five years is required. In some there is never a cure, but the disease is so arrested and the general condition of the patient so improved that he is a fairly active and useful citizen in the favorable climate. Such an one should never endeavor to make his home in the old climate again.

Bright's Disease: Its Operative Treatment.—Dr. W. T. Richard's believes that time and experience have shown that there are many pathological conditions of the kidneys that are beyond the reach and control of medicine and which have passed into a hopeless state by the continued presence of mechanical agencies that might have been arrested by mechanical means. Some of the most disastrous conditions of advanced kidney disease and its complications are due to mechanical causes which hitherto have only been imperfectly recognized. We know that in scarlatinal nephritis the damage that is done to the renal tissue is due to the inflammation occurring within an unyielding capsule. It is by the continued contraction without and the congestion within that a cirrhotic kidney is formed and finally destroyed by a process of squeezing.

A patient with pains in the loins; indigestion, with a loss of appetite and nausea; cardiac palpitation and dyspnea; progressive weakness; cold sweats, pasty appearance, due to anemia; impairment of vision, as spots before the eyes a cloudiness with transient total blindness; frequent urination and at times suppression, partial or complete; headache, dizziness, vertigo, insomnia resulting in nervousness, at times fainting spells; puffiness of eyelids, face, feet and finally ascites, hydrothorax and edema of the lungs.

Do not wait for this extreme, but at the first sign of deterioration as shown by the persistence or increase of albumin when it should disappear from the urine. When there is suppression of the urine or a tendency to that state. When the disturbance of the heart and circulatory system becomes evident, a disturbance that is evidenced only during the course of inflammatory renal disorders.

It is at this stage of Bright's disease that the best results are secured by renal decapsulation.

The Southern Clinic, September, 1908.

Tetanus Treated by Intra-Spinal Injection of Magnesium Sulphate.—Dr. W. H. Powers believes that a contracted muscle means a working muscle and constant contraction means constant work, therefore, exhaustion, and this is given as the cause of death in tetanus. The intra-spinal use of magnesium sulphate paralyzes the muscles, therefore gives rest while the system is elaborating the antitoxin. No mortality from this procedure has been recorded either in the few cases treated in this manner nor in experimental work.

The injection itself is comparatively simple. The solution should be used only at body temperature. The injection should be repeated at intervals of from twenty-four to seventy-two hours, depending upon the severity of the seizures.

Chronic Suppuration of the Middle Ear.—Dr. C. Drew says that in order to fully appreciate the danger of extension of sepsis from suppurative otitis media, to the meninges, one need only bisect a temporal bone so as to expose the middle ear, mastoid antrum and cells, and observe the very thin bony partitions which separate these cavities, or even the entire absence of any bony partitions between the middle ear and the jugular bulb, showing that infection from the middle ear may be communicated directly to the membranes of the brain. A most important fact not to be forgotten is that all these disastrous consequences might be averted if early treatment were promptly and properly instituted.

If instead of putting laudanum and sweet oil, or other useless drugs into an inflamed ear, the drum membrane were incised properly and in good time, in the great majority of cases no serious consequences would result. A neglect of this proper procedure is undoubtedly malpractice.

The Southern Practitioner, September, 1908.

Antisepsis in Midwifery.—Dr. W. T. Mares says that all physicians and midwives should feel it incumbent on themselves to make the obstetric procedure as free from danger to both mother and child as is possible to do. Even in families that are "eminently respectable" the diabolical gonococcus may lurk in the vagina, and if proper precautions are not observed before and after birth, another babe may suffer from that tragic condition, ophthalmia neonatorum. By the timely use of germicidal agencies and detergent measures, another individual may be prevented from going through a world of beauty with "eyes that see not." Furthermore, such intervention may prevent the woman having an acute

septic infection, or perhaps an ultimate infection involving the ovaries, tubes and adjacent structures, which may necessitate an operation and perhaps cost her her life.

The fact that many women in dirt and squalor, and without a semblance of ordinary cleanliness, make good recoveries, is a cause for many men becoming somewhat iconoclastic on the matter of cleanliness and asepsis about the accouchement bed. But the mere fact that no considerable number of such women die of acute troubles, should not deter physicians from keeping up their crusade against filth and uncleanness. Perhaps many chronic ailments that occur later are indirectly traceable to lack of obstetric cleanliness. At any rate, it is ever to be remembered that disease lurks where dirt and unsanitary conditions prevail, and it is often the work of a kind Providence that repels death-dealing disease.

The American Practitioner and News, Sept., 1908.

Corrigan's Disease.—Dr. M. St. John points out that aortic insufficiency is the disease which we so often find in the big, ruddy faced, muscular and athletic looking patient who presents himself complaining of hot flashes and giddiness upon suddenly arising from the recumbent to the erect posture. These are about all the symptoms complained of as long as compensation is maintained, but if the leak continues to enlarge, hypertrophy increases until we have in this condition the *largest* of hearts, thundering heavily against its bony cage as if it were trying to beat an outlet into more freedom; and this is what has suggested to Morrison his surgical palliative measures.

A U-shaped incision, commencing midway on sternum and extending downward and curving around below apex and extending upward to a point on a line with beginning; this musculo-cutaneous flap dissected up and held between warm towels, and four and one-half inches of fifth rib removed, along with five and one-half inches of sixth rib; flap stitched back with drainage tube at bottom; chloroform anesthesia; patient reported greatly relieved from pain and far more comfortable.

Morrison's theory is that the heart naturally has its apex beat in an interspace, but enlarged, beats against the bony cage and a state of cardiac erythism is induced, and that the heart muscle often succumbs to mechanical difficulty which can be relieved if we can give this enlarged organ more room in which to work and a muscular pad to beat against, just as in irremovable mediastinal tumor in which the heart is secondarily involved in the neoplastic growth.

Prophylaxis and Diet in Typhoid Fever

—Dr. A. E. Gardner says that it has been shown that the typhoid germ is very tenacious of life, and will live for many months under extreme variations of temperature. It may even be frozen in ice and live for an indefinite period of time. Wilson refers to an epidemic in a city of several thousand inhabitants, in which the infection was traced to a patient who had the disease in a house on a mountain side near the banks of a stream. This stream supplied the reservoir in the city several miles below. The patient was sick in the month of February, and the infected excreta was thrown upon the snow near this stream. In April the snow melted and carried this infection to the reservoir which produced the epidemic.

The most effective and convenient disinfectant is a strong solution of chlorinated lime, eight or ten ounces to a gallon of water. A liberal amount of this solution is poured into the bed vessel after each action, thoroughly agitated and allowed to stand for two or three hours before emptying into the privy. Strong solutions of sulphuric, muriatic and carbolic acids have also been effectively used for the same purpose. A solution of mercuric chloride 1-1000 is a very efficient disinfectant.

Gaillard's Southern Medicine, Sept., 1908.

Diagnosis and Treatment of Empyema

—Dr. M. E. Nuckels says that the key to success in the treatment of empyema consists almost entirely in early diagnosis and in the provision for and maintenance of good drainage. In treating a case of empyema we must keep in mind the fact that a collection of pus in the pleura is very different from an abscess; that it does not drain by gravity and that the cavity is not obliterated by proliferation of connecting tissue; but that it drains by the free upward and downward movement of the diaphragm acting as a pump, and that the space occupied by the pus is filled by expansion of the lung. The treatment, then, should be directed to the maintenance of free drainage and employment of all means at our disposal to aid expansion of the lung. Whenever effusion takes place in the pleura, the lung, diaphragm and chest-wall are compressed, the degree of compression depending on the amount of effusion. The result of this is loss of tone in these organs, the extent of loss depending not so much on the amount of effusion, but on the length of time the effusion is allowed to remain in the pleura.

Maryland Medical Journal, September, 1908.

Trend of Current Psychiatry.—Dr. C. B. Farrar believes that mental science has

passed through a clinico-symptomatologic, an anatomic-pathologic and a chemico-physiologic phase, and each has contributed something of solid achievement. But each of these phases has nevertheless only served to build out one of the external aspects of the subject. All of them represent really only so many different but correlated symptoms. Behind them the real process remains hidden. The appearances observed by the clinician never tell the whole story. Among the commonest morbid mental manifestations are euphoria and emotional depression, psychomotor exaltation and inhibition, affect dulling, disorientation, stupor, fallacious sensation, clouding and para-association. All these symptoms may occur in the most diverse conditions; none of them is pathognomonic of a given disease; they occur in most varied combinations, and in given cases there frequently arise so-called "atypical symptoms," which cannot be explained upon any hypothesis whatever of an objective disease process, whether this be conceived clinically, chemically or pathologically.

But few mental diseases have hitherto been found to have a definable pathology. These are chiefly such diseases or abnormalities as are observed at the two ends of life, together with that dread malady of mid-life, paresis. In these various conditions we may have constant pathological pictures. Yet at most the chemical or pathologic findings are but co-symptoms; they do not elucidate the distorted psychic events. Paresis was the first mental disease to be established upon the basis of pathologic anatomy, and from this standpoint it still remains the best-known disorder of the mind. Its pathology is constant, but its clinique is as protean as possible. Beyond the fact that the element of defect is usually early discernable, accompanied by certain neurologic symptoms, paresis may strike during its course almost any or all of the keys of the psychiatric gamut, without leaving any differential anatomic score. A dead brain cannot tell us the trend of the morbid thoughts, feelings and impulses it mediated during life.

Texas Medical Journal, September, 1908.

The Anatomic Operation for Radical Cure of Inguinal Hernia Under Local Anaesthesia.—Dr. O. L. Norsworthy after describing the technique of the above operation says that the advantages of local anaesthesia in hernia operations are:

1. It avoids the danger of general anaesthetic, also avoids all symptoms which sometimes follows any general anaesthetic, i. e., nausea, vomiting, distention and intra-abdominal pressure.

2. You are less likely to cut the nerves supplying the muscles to be used for correcting the hernia.

3. More patients will submit to a cure on account of no general anaesthetic.

4. The patient being wide awake can cough or strain the sac down, sometimes aiding the operator during the operation.

5. We are less likely to have suppuration follow on account of clean-cut dissection and less blunt dissection and handling of the tissues.

Limitations.—The author has found it very hard and uncertain to cocaineize fat tissue and in more than one instance has been forced to cause a fat patient pain or give some general anaesthetic to complete the operation. He has failed to complete the operation without some general anaesthetic toward the end of a prolonged dissection for adhesions around the cord and sac; especially is this true in cases coming from the hands of men who practice the injection of irritants as a treatment. In these cases the anatomy is so disfigured, the adhesions so numerous and dense and the dissection necessarily so prolonged it is almost impossible to complete a painless operation under local anaesthesia alone.

Atlanta Journal-Record of Medicine, Sept., 1908.

Some Aspects of Intestinal Auto-Intoxication.—Dr. L. M. Gaines believes that the practical conclusion to be drawn is that the presence or absence of indican in the urine must be interpreted by the associated clinical symptoms and is of entirely different significance from the occurrence of other pathological constituents such as albumin. Jaffe estimates the normal average amount of indican in the urine to be 6.6 mg. in 24 hours. Houghton, however, maintains that this is incorrect and that there is normally no output as shown by the practical absence of indican in the urine of healthy children and of middle aged individuals under strict regimen. Emerson states that 5.25 mg. is normally present in 24 hours. It has been rare in the author's experience to find an absence of indican, but whether or not the presence of even a small amount is normal or not, is open to question. The absence of symptoms in cases of indicanuria may be explained by the high oxidizing power, or as Houghton further suggests because indol absorption need not extend over a long enough period for the appearance of toxic symptoms.

A not infrequent manifestation of intestinal intoxication is the appearance of various skin lesions.

Advantages of Early Operations in Appendicitis.—Dr. J. L. Campbell points out the following:

1. If the consent of the patient can be secured for an early operation, they can be saved much trouble, for in the first place 75 per cent. of the cases will recur, or the first attack may not subside until a relapse occurs, or it may become chronic.

2. In 904 cases operated on in Atlanta, 107 were for abscess. When an abscess results the patient is necessarily confined to the bed for a long period of time, to say nothing of the danger and the adhesions that will be carried through life.

3. Seven per cent. of these cases mentioned had general peritonitis, of which several died, and those that recovered will also carry many intestinal adhesions to their graves and are in constant danger of intestinal obstruction.

4. The patient, in a few virulent cases, will, in a short time, be so saturated with poison that if they are not operated on and drained at an early stage, death is sure to result.

5. The patient is in constant danger of septic emboli being carried to some or all of the viscera where abscess and pyæmia, pneumonia, nephritis, endo- or peri-carditis, in fact, many other conditions may develop.

6. No man, no matter how much experience he may have had, can tell what the condition of the appendix is. If the patient is in acute attack, "who can say that there will ever be an interval? The patient may die in this attack."

The Mobile Medical and Surgical Journal, September, 1908.

Splenectomy in Banti's Disease.—Dr. G. Torrence gives the following on etiology of this disease: Barr says it is probably due to a vaso-motor paresis of the splanchnic area, either in whole or in part, arising from disease of the visceral sympathetic ganglia. As a consequence there is a great engorgement of the abdominal viscera; and especially the spleen and the liver; and increased hemolysis with consequent oligochromemia and oligocythemia. The increased blood supply to these organs leads to fibrosis and lessened function. The peritoneal effusion is due rather to vascularity than to portal obstruction.

Harris and Herzog think the enlarged spleen is responsible for the destruction of the red cells and advance the theory that there is an erytholytic enzyme secreted by the increased numbers of endothelial cells found in these spleens and feel that this view is substantiated by the fact there is an immediate improvement in the blood picture after removal of the spleen.

The Diagnosis and Treatment of Hook Worm Disease.—Dr. W. C. Howell thus summarizes his conclusions from study and experience as follows:

1. This disease is of great importance to us from an economical standpoint because of the deaths caused by it, the uselessness of its subjects, and the money they spend for patent medicines to relieve the trouble.

2. That the diagnosis can readily be made from the history, the physical examination and the four fecal tests.

3. Thymol is best given powdered and in capsules.

4. When thymol causes any unpleasantness, the remainder of the treatments should be given of betanaphthol.

5. Give most thorough instructions in reference to substituting a purgative, as oil may be given, in giving a little toddy or letting the patient have a little soup.

6. Have the worms strained out and counted for your information, for the psychic effect upon the patient and to get the people interested in hook worm subjects.

7. Secure thorough purgation in all cases.

8. Always give the second and sometimes the third and fourth treatments, the second never having failed to get worms in my experience.

Spectacle Fitting in Ophthalmology.—

Dr. S. L. Ledbetter says with the ophthalmologist spectacle fitting, while a very important feature of the work, is more or less an incident and not the main idea; therefore he cannot in any sense become a competitor of the advertising optometrist. But there is one thing the ophthalmologist could and should do. In fact, the medical profession generally should insist upon the optometrist limiting his adds to spectacle fitting, and cut out all reference to the curing of headaches, indigestions and the correcting of muscle irregularities, etc. These subjects should come under the domain of medicine and should not be hawked about by every little graduate optician and traveling optometrist, who takes it upon himself to inform the public through the press of his wonderful success and skill as a refractionist.

Alabama Medical Journal, September, 1908.

Dr. G. R. Holden points out that pelvic masses are found at the vaginal examination of each patient. This is the only sign which is present alike in every case. The mass may be unilateral in some cases; in others the entire pelvis is more or less filled by a mass formed by the ectopic gestation and adherent blood clots.

It is pertinent to add that sometimes the tenderness is so great that no masses can be

made out in the pelvis until an examination is made under anæsthesia.

Tenderness on vaginal examination is a variable symptom. In seven cases there was no vaginal tenderness, while in eight it was marked.

From the foregoing consideration it will be seen that there are no pathognomonic signs of extra-uterine pregnancy. Excepting the presence of a mass in the pelvis, there is no one sign which is invariably present in every case.

The diagnosis can often be reached only by carefully cross-questioning the patient as to all her symptoms, and then weighing all the evidence both for and against ectopic gestation.

The most important symptoms are first a period of amenorrhea followed by a sudden attack of severe abdominal pain with vaginal hæmorrhage appearing soon after the pain. If in addition a unilateral mass is found in the pelvis the great probability is that we have to deal with an extra-uterine pregnancy which has either ruptured or undergone a tubal abortion.

Diagnosis before rupture or tubal abortion occurs will, of course, only be made when some symptoms causes the physician to make a pelvic examination. In two cases the diagnosis was made before rupture. In each case the ovum had become loosened somewhat from the tubal wall and some blood had leaked out through the end of the tube into the abdominal cavity. The pain from the peritoneal irritation lead each patient to consult a physician.

Treatment of Puerperal Sepsis.—Dr. E. M. Prince regards the employment of the curette in puerperal endometritis as positively contra-indicated for the following reasons: First, because there is nothing to be curetted away; secondly, because by this means nature's protective wall of leucocytes is broken down, giving a free and unobstructed route for the deeper invasion of the tissue by the organisms. After once the uterus is clean, there is no use for further douching, unless we have a putrefactive process present and a foul smelling discharge, when a douche of permanganate of potash will prove of service.

Intra-venous injections of salt solution or hypodermoclysis is useful, as it dilutes the poisons, causes free diuresis and diaphoresis, and acts directly as a heart stimulant. Recently, in consultation with two other physicians in a case of puerperal infection, in which the pulse was 170 and with a high temperature, we used 1500 c.c. of intra-venous injection, followed by prompt improvement. As the case would show signs of growing worse, we would resort to hypodermoclysis, and in this manner the patient

was tided over the crisis and restored to health.

Auto-Intoxication or Billiousness.—Dr. E. P. Lacey believes that the most prominent symptoms of biliousness are headache, loss of appetite, constipation, nausea, a brown coat on the tongue and frequently inability to sleep. There is a difference between this condition and auto-intoxication, from the fact that intestinal antiseptics which do not act on the liver will not relieve the patient. When calomel has only a purgative effect it is barren of results when administered in cases of billiousness. The action of this drug on the liver has occasioned much controversy, some asserting that it is not absorbed and acts only on the excretory glands of the small and large intestine. Investigators who have studied the excretion of drugs claim they have found calomel in the bile in the gall bladder, which, if correct, is conclusive evidence that it is absorbed and acts on the secretory cells of the liver. Clinical medicine sustains the contention that it is a cholagogue.

Hepatic insufficiency is a frequent cause of auto-intoxication from the intestinal canal. The liver stands as a barrier to protect the "fortress of life" from an invasion from this source, and when its defenses, the liver cells, are weakened from any cause, toxic substances from the intestines, "flood the liver channels where they should normally be arrested or disinfected," still further injuring the efficiency of any already crippled organ, and completing of a vicious circle,

Virginia Medical Semi-Monthly, Sept. 25, 1908.

The Relation of pathology to Modern Surgery.—Dr. J. S. Harsley says in the matter of such common operations as that for appendicitis knowledge of pathology is of the greatest value. A study of each appendix removed will show the amount of inflammation present or whether there was any inflammation at all. Following this up with a careful history of the patient and the operation, and the history after the operation will exhaust all that can be learned about a case, and will enable the surgeon to differentiate more accurately between appendicitis and various types of abdominal neurasthenia, where an operation is worse than useless. These cases may be temporarily improved by rest in bed following the operation, but soon come back complaining of the same old pain, and the last stage of such patients is worse than the first. Their little stock of vitality has been exhausted by the ordeal of an unnecessary operation, and has left them "nervous

bankrupts." If we cannot find in the gross appendix a concretion, or some evidence, present or past, of inflammation, or if a careful examination, under the microscope does not show evidence of round cell infiltration, we might as well be honest with ourselves and search for something other than the removed appendix for the cause of the pain.

And so, in almost every operation, a surgeon will find that personal work in the laboratory, carefully going over the specimens and tissue he removes, will enable him to correct many errors and will increase his surgical efficiency as well as augment his wisdom as a diagnostician.

Should We Have a Bureau of Health?

—Dr. J. T. B. Bulloch believes that there should be a health officer appointed by the government whose duty it should be to visit all the building and the employees and see that every individual is free from contagious diseases, and that the offices, etc., are in a sanitary condition. Not only should all emigrants be inspected, as is now done, but there should be a general inspection of all buildings, and the question of child labor and sweat shops, and all matters, too numerous to mention, should be looked into. There is a very important matter calling for the closest scrutiny, which may not only jeopardize the health of the many, but seriously affect the farming interests of this country, and that is the case of that very serious disease called "pellagra," said to be caused by eating damaged maize, or Indian corn. If it is true that pellagra is due to maize, damaged or otherwise, it becomes a serious consideration, for not only is it a Western but a Southern staple. If it is not true that maize is the cause, then it should be contradicted. If it is true that only damaged maize is a factor, how important that steps should be taken to protect the public against eating an article which is productive of so serious a disease! A bureau of health, then could look into all these matters, and be of untold benefit to our citizens and country.

Principles of Surgery—Lecture xlix—Surgical Fevers, Continued—Septicemia and Pyemia; Definition. Pathology. Causes, Symptoms, Diagnosis and Prognosis, Treatment—By Stuart McGuire, Richmond, Va.

Book Notices.

A Manual of Diseases of the Nose and Throat. By Cornelius G. Coakly, M. D., Clinical Professor of Laryngology in the University and Bellevue Hospital Medical College. New York. New (4th) edition, 12 mo., 604 pages, with 126 engravings and 7 colored plates. Cloth, \$2.75 net. Lea & Febiger, Publishers, Philadelphia and New York, 1908.

Just nine years have elapsed since this work first appeared, a span long enough to test the quality or any book and to establish it firmly if it answers all tests. The profession, including teachers of laryngology, are evidently clear as to the merits of "Coakley," for three large editions have been absorbed, and the demand instead of being sated is more vigorous than ever. To achieve such popularity in a crowded field betokens command of the whole of a subject, as well as judgment as to what to omit, and how to present all that is essential. As a laryngologist and teacher, Professor Coakley possesses both the practical and didactic knowledge. He takes his reader from the beginning and carries him through to the end of the subject, framing the book so that it will serve the man who has not had the advantage of personal clinical instruction, and therefore meeting the needs of all others as well. He is especially clear and full in the practical sections, namely those on examination, diagnosis and treatment. He has selected the medicinal and operative measures which in his experience are best and has given them in full detail. A special chapter on Therapeutics contains the drugs classified by their local actions and a number of useful prescriptions with indications for their employment. It goes without saying that a work having achieved a coveted position in the forefront will be careful to maintain it by thorough revisions to date whenever the profession exhausts an edition and calls for another, conditions which are all exemplified in this new issue.

Manual of Psychiatry. By J. Rogues de Fursac, M. D., Physician-in-chief of the Public Insane Asylums of the Seine Department. Authorized translation from the French by A. J. Rosanoff, M. D. Second American from the second French Edition. Revised and Enlarged. New York: John Wiley & Sons. London: Chapman & Hall, Limited. 1908.

A handy manual on Psychiatry in which the author has followed the classification adopted by Kraepelin. This classification is now generally used in hospitals throughout this country, and indeed it has been

largely accepted by alienists throughout the world. This manual has received recognition in Europe and in America, because of its accuracy, lucidity and trustworthiness.

Hygiene for Nurses. By Isabel McIsaac, Graduate of the Illinois Training School for Nurses. New York: The MacMillan Company. 1908.

So far as we know this is the first attempt to provide a special text-book on Hygiene adapted for use by pupil nurses. The author has accomplished her task in most commendable manner. She has included only those things the pupil can assimilate and use, only what is essential and valuable. The text is presented in a style simple and concise, technical terms having been avoided as much as possible. We commend the work to teachers of nurses.

Diseases of Children. By William Nelson Mundy, M. D., Professor of Pediatrics in the Eclectic Medical Institute, Cincinnati, Ohio. Second revised edition, illustrated, 8-vo, 512 pp. Cloth, \$3.00. The Scudder Brothers Co., Publishers, Cincinnati, Ohio.

This treatise on Pediatrics, except in the matter of therapeutics, does not differ greatly from many others with which we are more familiar. The book is written by a physician and teacher of the eclectic school of practice and is therefore designed especially for those who belong to this school. It is well written, clear in style, and, while not too concise as regards details, yet it is brief enough for practical use. The illustrations and charts, while they are not numerous, are ample and many of them are original.

A Text-Book of Diseases of Women. By Chas. B. Penrose, M. D., formerly Professor of Gynecology in the University of Pennsylvania. Second Revised Edition. Octavo of 550 pages, with 225 original illustrations. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, \$3.75 net; Half Morocco, \$5.25 net.

Dr. Penrose's work is too well known to demand comment. For many years it has been a well-recognized text-book which presents to the student the very best teaching of the subject of gynecology. Its general plan is excellently arranged and the text is written in clear, concise style which renders it easy for the student to grasp and understand the principles of the subject. A feature which renders the book so useful for the student is its lack of unnecessary detail. The author omits all facts of anatomy, physiology and pathology and as a rule recommends but one plan of treatment for each disease, thus avoiding confusing the student or physician who consults the

book for practical guidance. Being a subject in which such great advances have been and still are being made, a text-book on gynecology must be subjected to frequent revisions in order that it may be kept abreast of the times. Dr. Penrose has unfailingly kept his book up-to-date and in the case of the sixth edition he has carefully revised all its pages and has made those changes and additions that have been rendered necessary by the increase of our knowledge of gynecology.

Report from the Pathological Department of the Central Indiana Hospital for Insane. 1903-1906. Geo. F. Edenharter, M. D., Superintendent. Chas. C. Manger, M. D., Pathologist.

This volume contains the statement of the Superintendent to the Board of Trustees, a summary of three years' work in the pathological department by Chas. F. Neu, M. D.; and papers read before the Marion County (Ind.) Medical Society.

Diseases of the Skin and the Eruptive Fevers.

By Jay Frank Schamberg, M. D., Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Octavo of 534 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$3.00 net.

This new work is a thorough, practical, and reliable presentation of the subjects of which it treats. It is modern in every respect, treatment especially reflecting the most recent advances. Indeed, throughout the work particular attention is given to diagnosis and treatment. Not only in the chapter devoted to actinotherapy, Röntgen-therapy, and radium, but throughout the work, these means of treatment have been emphasized, so that the book is really a complete treatise on the application of actinotherapy and radiotherapy in skin diseases. The section devoted to the *Eruptive Fevers* is particularly excellent. The cutaneous manifestations of all diseases are considered, making this work an invaluable aid in diagnosis, especially in the diagnosis of the ordinary exanthematous fevers. The eruptions of typhoid fever, typhus fever, malaria, influenza, epidemic cerebrospinal meningitis, etc., are all considered. The large number of original illustrations are extremely helpful.

A Text-Book of Operative Surgery. Covering the Surgical Anatomy and Operative Technic Involved in the Operations of General Surgery. Written for Students and Practitioners. By Warren Stone Bickham, Phar.M., M. D., Visiting Sur-

geon to Charity and Touro Hospitals, New Orleans. Octavo of 1206 pages, with 854 illustrations, entirely original. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, \$6.50 net; Half Morocco, \$8.00 net.

Bickham's Surgery has supplied a field in which there was for a long time great need of just such a book. No physician's library is complete without it whether or not he claims to practice surgery. There are many small operations of which it is imperative oftentimes that the practitioner know the details. The author has subjected his work to an unusually critical revision, enlarging it by the addition of new matter to the extent of over 250 pages, so that today Bickham's Surgery stands out as the one best single-volume work extant on Operative Surgery. The new matter of particular interest is as follows: Brewer's method of closure of wounds of larger arteries; Matas' aneurismorrhaphy; Matas-Bickham operation for arteriovenous aneurisms; operative treatment of fractures; Bell's geometric cyrtometer. tubercular osteitis of spine; Pott's disease; Willy Meyer's operation for excision of mammary gland; anastomosis by Jaboulay button; Harrington's segmented rings for entero-enterostomy; Weir's appendicostomy; Mixer's colostomy; Jessett-Barker's intussusception; Finney's gastro-duodenostomy; Mayo's pylorectomy and gastro-jejunosotomy; Haasler's retro-duodenal choledochotomy; Kocher's trans-duodenal choledochostomy; Mayo's overlapping method of umbilical hernia; and Halsted's operation for oblique inguinal hernia. There have also been added some 300 original illustrations.

Genito-Urinary Diseases and Syphilis. By Edgar C. Ballenger, M. D., Lecturer on Genito-Urinary Diseases, Syphilis and Urinalysis, Atlanta School of Medicine; Editor Journal-Record of Medicine; Genito-Urinary Surgeon to Presbyterian Hospital, Atlanta, Ga., Illustrated. Atlanta, Ga., E. W. Allen & Co. 1908.

Dr. Ballenger's long experience as a teacher and as a specialist in genito-urinary diseases amply qualifies him to write a volume of this character. He has realized that the medical student is frequently placed at a disadvantage on account of either the minute detail of large and comprehensive works or the omission of important facts from smaller manuals and quiz compends. With these facts in mind the author has endeavored and has succeeded most admirably in presenting fundamental principles. At the same time he has not failed to enter into detail when considering matters of prime importance. Some of his views are

original in that he does not always follow well-beaten paths. The text is clear and concise in expression, the illustrations are good and the book is thoroughly up-to-date. It is to be most heartily recommended to students, teachers and practitioners.

Therapeutics: Its Principles and Practice.

By Horatio C. Wood, M. D., LL. D., Emeritus Professor of Materia Medica and Therapeutics, University of Pennsylvania. Thoroughly revised and rewritten by H. C. Wood, Jr., M. D., Associate Professor of Pharmacology in the University of Pennsylvania. Fourteenth Edition. Philadelphia and London: J. B. Lippincott Company.

A book which has reached its fourteenth edition needs little praise to attest its standard qualities. For a good many years Dr. Wood has been recognized as one of the foremost authorities of the world on Materia Medica and Therapeutics, and his book has, from its very first appearance, been regarded both as a text-book and as a reference volume with the highest esteem by students, teachers and practitioners. His classification of remedial agents makes it less difficult for the student to grasp the subject. The discussions of physiological actions of drugs and their therapeutic applications and indications are accurate and complete. A peculiarly important feature of this new edition is the method adopted in this volume of emphasizing the more important facts. Fundamentals which the undergraduate student should be required to know are printed in large type, while the discussion of the more intricate details of pharmacology and therapeutic data of less importance are printed in smaller type. Considerable changes have been made in certain portions of the book, made necessary by the alterations in and additions to the knowledge of therapeutic means and methods. All the later contributions to the literature which have proved really valuable have been incorporated within the pages of this latest edition. A number of new illustrations have been introduced: these are valuable in elucidating portions of the text. Dr. H. C. Wood, Jr., a worthy son of his father, has been almost entirely responsible for this last revision of an already famous work. He has accomplished the task in most superb manner.

Obstetrics for Nurses. By Joseph B. DeLee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Third Revised Edition. 12mo of 512 pages, fully illustrated. Philadelphia and London. W. B. Saunders Company. 1908. Cloth, \$2.50 net.

Dr. DeLee's book is intended primarily

for nurses, but it would be equally valuable to the medical student because the young doctor must oftentimes act both as physician and nurse to his obstetrical patients. There are really two subjects considered in the book,—obstetrics for nurses and obstetric nursing. The author has succeeded admirably in so combining them that the relations of one to the other are natural and mutually helpful. The long experience of the author both as an obstetrician and as a teacher of nurses amply qualifies him to write such a book, and it is certain that he has succeeded in producing one of the best, if not the very best, manual on this subject in existence.

The book abounds with practical suggestions, and they are given with such clearness that they cannot fail to leave their impress upon the mind of the reader. The practical illustrations are nearly all original, being photographs of actual procedures.

A Manual of Clinical Diagnosis. By James Campbell Todd, M. D., Associate Professor of Pathology, Denver and Gross College of Medicine, Denver. 12mo of 319 pages, with 131 text-illustrations and 10 colored plates. Philadelphia and London: W. B. Saunders Company. 1908. Flexible leather, \$2.00 net.

This manual by Dr. Todd is entirely new and is designed for the practitioner and student. It is extremely practical, the methods selected being those which require the least complicated apparatus and the least expenditure of time. With this volume the practitioner will be enabled to examine his clinical material in his own laboratory. Although concise, the work is thorough and accurate, its conciseness consisting more in the limitation to one method rather than in the abbreviation of that method. As more can be learned from a good picture than from any description, especial attention has been given to the illustrations, each one really interesting, each one being unusually helpful. Practically all the microscopic structures mentioned, all unusual apparatus, and many of the color reactions are shown in these pictures.

Pathological Technique. Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M. D., Associate Professor of Pathology, Harvard Medical School; and J. H. Wright, M. D., Director of the Pathological Laboratory, Massachusetts General Hospital. Fourth Revised Edition. Octavo of 480 pages. Illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, \$3.00 net.

This book is especially valuable for prac-

tical use in pathological laboratories, both as a guide to beginners and as a source of reference for those more advanced. It likewise meets the wants of practitioners who have more or less opportunity to do general pathological work. It has won a deservedly wide recognition.

The authors have made this new fourth edition most complete, adding many new subjects and rewriting a number of the subjects already treated. Among the new matter may be mentioned, as of particular interest, Zinsser's anaerobic method for plate cultures; the ox-bile method, the medium of Eudo, and the malachite-green medium for typhoid bacillus; Wright's method for blood-platelets and bone-marrow giant cells; Best's improved stain for glycogen; von Kossa's silver method for lime-salts; Levaditi's method of staining the spirochæte pallida; and Sir A. E. Wright's bacterial vaccines. The paragraphs on the micro-organism of actinomycosis have been rewritten to accord with recent investigations.

Gynecology and Abdominal Surgery. In two large octavos. Edited by Howard A. Kelly, M. D., Professor of Gynecologic Surgery at Johns Hopkins University; and Charles P. Noble, M. D., Clinical Professor of Gynecology at the Woman's Medical College, Philadelphia. Large octavo volume of 862 pages, with 475 original illustrations by Mr. Hermann Becker and Mr. Max Brodel. Philadelphia and London: W. B. Saunders Company, 1908. Per volume; Cloth, \$8.00 net; Half Morocco, \$9.30 net.

The second volume of this magnificent work fulfills every expectation aroused by the appearance of the first volume. The names of the editors, Drs. Kelly and Noble, upon the title page would alone be sufficient guarantee that it is as complete and scientific a treatise as is possible to be made. A glance at the list of names of those who have contributed to Volume II of this work impresses one with the fact that no higher authority could have been appealed to.

A very intimate association exists between gynecology with abdominal surgery, and the editors have very fitly combined these two important subjects in one work. For this reason the work will be doubly valuable, for not only the gynecologist and general practitioner will find it an exhaustive treatise, but the surgeon also will find here the latest technic of the various abdominal operations. It possesses a number of valuable features not to be found in any other publication covering the same fields. It contains a chapter upon the bacteriology and one upon the pathology of gynecology,

dealing fully with the scientific basis of gynecology. In no other work can this information, prepared by specialists, be found as separate chapters. There is a large chapter devoted entirely to *medical gynecology*, written especially for the physician engaged in general practice. Heretofore the general practitioner was compelled to search through an entire work in order to obtain the information desired. Abdominal surgery proper, as distinct from gynecology, is fully treated, embracing operations upon the stomach, upon the intestines, upon the liver and bile-ducts, upon the pancreas and spleen, upon the kidneys, ureter, bladder, and the peritoneum. Special attention has been given to modern technic and illustrations of the very highest order have been used to make clear the various steps of the operations. Indeed the illustrations are truly magnificent, being the work of Mr. Hermann Becker and Mr. Max Brodel, of the Johns Hopkins Hospital.

By far the greater part of Volume II is devoted to a full and detailed discussion of Abdominal Surgery. The chapter on the Breast, covering 100 pages, is the most elaborate and the best illustrated presentation of this subject ever published, representing, as it does, the wealth of material of the Johns Hopkins Hospital. It contains 123 original illustrations, six in colors. Besides the usual abdominal operations, the volume contains chapters on complications of operations; operations during pregnancy, and conservative operations upon the appendages—subjects usually treated of only in monographs.

Materia Medica and Therapeutics. By Finley Ellingwood, M. D. Sixth edition revised and enlarged. Published by the Ellingwood's Therapeutist Co., Chicago, 1907.

The fact that Dr. Ellingwood's book has reached its sixth volume is abundant evidence that it is a work which has proven helpful and valuable to the medical profession of the United States. The method of classification is original; and the description and discussion of various remedial agents is accurate and quite as full as could be desired. No very great changes appear to have been made in this revision although a number of remedies have received more complete discussion and a few not included in former editions have been added in this one. The work has therefore been considerably enlarged. Dr. Ellingwood has a reputation which is by no means confined to his own country; as the editor of Ellingwood's Therapeutist his influence is making itself felt wherever his name is heard. Prof. John Uri Lloyd's consideration of

Pharmacy and Pharmacognosy which is included adds no little to its already great excellence.

Out in the Fir-Blue Hills.

Out on the fir-blue hills, my heart, in the
autumn weather,
Heareth the lullaby croon of the Earth-
Mother rocking her children;
Seeketh, in evening shade, the fragrant
breath of her bosom;
Feeleth the placid repose of her being in
ripples of motion
That, urged by her voice into waves of qui-
escent rejoicing,
Go pulsing the shores of the ego in rhythms
of magical splendor.
Out from those blue-rimmed hills my heart
return not, lest knowing
Once more the old discontent, thou hear not
the Earth-Mother crooning,
Crooning of love ever faithful, of joy on the
Hill-rim dreaming.

Mary Byerly in November Leppincott's.

Parliamentarism in Bulgaria.

The Bulgarian people have universal suffrage, but are not yet ripe for it. The parliamentary system has tended to hinder rather than to further national progress. The years of Bulgarian independence have been marked by constant parliamentary change, and the frequent exercise of the right of dissolution. From 1879 to 1905, counting only changes of prime ministers and ignoring the frequent reconstruction of cabinets, there have been nineteen cabinets. Thus it will be seen that had Bulgaria had to rely only upon its elected representatives for the direction or even inception of policy, it would have fared badly in this parliamentary chaos. The elections, although conducted by secret ballot, frequently show the influence of the government actually in power in the return of only a very insignificant fraction of the opposition. But all these details are inevitably attendant upon the possession of full parliamentary privileges by an unprepared people; and undoubtedly things must improve as time goes on. In the past, however, the one stable point in Bulgaria has been the Prince, and he has succeeded in maintaining a definite policy despite the constant parliamentary confusions.—From "Ferdinand I., Czar of the Bulgars," by Alfred Stead, in the American Review of Reviews for November.

Abstracts of the Leading articles of the month.

Treatment of Diphtheria.—Gasper (British Medical Journal) publishes some observations on diphtheria, based on 150 cases treated by him in the past two years. The writer's mortality was 7.33 per cent. No large dose of serum were given, never more than 6000 units. In addition to serum treatment, he used a local application of nitrate of silver for painting on the throat and a mixture of lead lotion and carbolic for the glandular enlargement; sprays and gargles were also used. The of his remarks are, however, directed to a strong plea for intubation as against tracheotomy. The writer's results with tracheotomy were unfortunate, for out of the three cases tracheotomized, all died. Of the chief difficulties met with in intubation (hemorrhage, glottic edema, vomiting, and glottic spasm), glottic spasm is perhaps the most obstinate at times. Syncope never occurred during the operation. Occasionally some difficulty is found in removing the tube, and in these cases Bayeaux's methods of enucleation by means of the thumb at the point of the cannula in the cricothyroid space, the child's head being extended and then rapidly fixed, may be useful. As a general rule, the tube was kept *in situ* from three to five days, but there are exceptions, just as there are with regard to the possibility of discarding a tracheotomy tube. Although intubation, in the author's opinion, is essentially to be preferred to tracheotomy in hospital practice, he admits that in private practice tracheotomy may in some cases be more advantageous. For there are accidents in connection with intubation—for example, sudden mechanical obstruction from blocking or dislodgement of the tube—which call for immediate and prompt attention.

Hydrogen Peroxide in Chronic Suppuration. Scharzkopf (Med. chir. Centralbl.) says that it has been known for a long time that hydrogen peroxide is a valuable remedy in surgical affections, but the impurity of the commercial preparations and their varying strength have not rendered the drug very popular. Recently, a pure solution of constant and high strength has been placed upon the market under the trade name "perhydrol." Emil Scharzkopf has employed perhydrol in the profuse suppuration of caries, cold abscesses, and suppurating lymph-nodes, and has noticed that the secretion is materially diminished, and odor disappears, and the patients slowly gain in strength, since the daily change of dressing is no longer required. The dangers of gen-

eral amyliodosis are thus less imminent. One great advantage over carbolic acid and other antiseptics lies in the fact that perhydrol cleanses mechanically only, so that there is absolutely no danger of suppuration. It readily kills at bacteria, but it is especially antagonistic to the anaerobes.

Fetor in Ozena.—Frese (Deut. Arch. fur klin. Med. (finds that the odor in ozena is due to a number of sources: an important factor is the abundance of the volatile fatty acids which are produced by the decomposition of the neutral fats. The secretion as secreted is odorless, but it is rapidly decomposed, not only by the so-called ozena bacillus but by a number of microorganisms. The products of tertiary syphilis are analogous.

The Treatment of Appendicitis.—Schmitz (Berl. Klin.) reviews the variety of opinions prevalent, and present teaching on treatment of appendicitis. He deals with 116 papers representing Continental opinion, and sums up definitely against expectant treatment. That so many opinions exist is due to the fact that clinical and pathological conditions do not correspond. With the same local degree of this disease the symptoms and danger to life may be far different. Cases which are slight and acute, and permit of being immediately under skilled observation, should alone be placed under expectant treatment. All other acute cases should be operated upon within forty-eight hours. The danger is considerably less now that the abdomen can be opened with almost entire freedom from risk, then letting the disease take its course. The author urges surgical treatment between the attacks, if they are slight and recurrent, also in the chronic form where the symptoms do not entirely disappear after the patient has suffered from an attack. He does not favor flushing the peritoneal cavity when peritonitis has become general. For abscesses in the pouch of Douglas he recommends drainage per vagina or per rectum.

Strangulated Herniae.—Thurston (Indian Medical Gazette) has written this paper to illustrate certain differences which exist between the European and the Asiatic. The greatest difference is the great frequency of the cæcum in the herniæ of the latter. Brunner from an examination of 417 cases, found that cæcal herniæ formed 2.8 per cent. Bull found a rather higher percentage, 3.7. Captain Thurston found the cæcum in the herniæ of Indians in 25.5 per cent. of cases, seven to ten times as often as they are found in Europeans. The European is a meat eater, and the Asiatic

is a vegetarian. The latter passes motions at least twice as large as the former. The result is that great difference in the alimentary canals is found in the cæcum. In the Indian, Captain Thurston found it to be movable enough to enter a hernia in 26.6 per cent., whilst Treves found it to be so movable in only 11 per cent. of Europeans.

Two very instructive examples of reduction en masse are given in this paper, which, as Thurston remarks, emphasize the adage that "when in doubt operate."

Angina Pectoris.—Mackenzie, in British Medical Journal, states that from the consideration of the fact that angina pectoris occurs in lesions of great diversity, some condition common to all must be the cause of the symptoms. The fact that angina pectoris appears only after the heart muscle has been long exposed to excessive strain points to the cause being situated in the muscle. All the functions of the muscle fibres save that of contractibility can be shown to be intact in many cases that suffer from angina pectoris. The alternating action of the heart is a demonstrable sign of exhausted contractibility, and its presence is always associated with symptoms that are included in the symptom complex of angina pectoris. The same exciting cause—extra strain on the heart—may provoke both the angina pectoris and the alternating action, and both may disappear with the removal of the cause. The inference to be drawn from the consideration of these facts is that the symptoms that are included in the term "angina pectoris" are so closely associated with an impairment of the function of contractibility of the muscle fibres of the heart that in all probability angina pectoris will be found to be an evidence of the impairment of the function of contractility.

Syphilis in Apes.—Neisser (Deut. med. Woch.) in his further investigations in Batavia on syphilis in apes, finds that the higher the animal the greater the susceptibility, as determined from fifty-three class varieties. Cutaneous inoculations, from human moist papules, chancres and primary glands are uniformly successful to the degree of inducing a primary lesion, but which was not followed by glandular enlargement or a generalized eruption. Subcutaneous and intraperitoneal inoculations were uniformly unsuccessful. Cutaneous inoculation from animal to animal was sometimes not, and there was no apparent attenuation in the virus. Animals inoculated with bone marrow from syphilitic apes were negative, but these animals could not later be successfully inoculated with human syphilitic virus.

Syringomyelia—Deformity of the Shoulder.—Zesas, (Deutsche Zeitschrift für Chirurgie) says the joints of the upper extremity, and especially the shoulder, are affected in syringomyelia in the same percentage of cases as those of the lower in locomotor ataxia. Trauma is often looked upon as an etiologic factor, although its influence is doubtful.

The first change is a relaxation of the joint capsule, followed by thickening and adhesions to neighboring structures. The cartilage later becomes eroded or converted into fibrous tissue. The bones show atrophy and hypertrophy side by side, with a tendency to spontaneous fractures. In the shoulder the entire head and neck of the humerus may be absorbed; the remaining end may be so enlarged as to resemble a tumor. The arm may be considerably shortened. The joint changes may occur before any sensory symptoms. The usual condition is a tendency to spontaneous luxation caused by enlargement of the humerus. As regards treatment, resection is rarely required, but an orthopedic apparatus to prevent luxation may be of great service. The histories of twenty-nine from the literature are appended.

The Etiology of Pulmonary Tuberculosis.—Whitla (British Medical Journal) concludes from his studies that "though we still are hardly justified in assuming that phthisis never occurs from the inhalation of dried sputum-dust or from the breathing of the spray injected in the act of coughing, it appears to be conclusively proved that, as forcibly put by Ravenel, the alimentary tract is a frequent portal of entry for the tubercle bacillus, which is able to pass through the intact mucous membrane of the bowel without producing any local lesion at the point of entrance; that this event is especially frequent in children, and that the milk of tuberculous cows is the common source in these cases. Probably at no distant date the contention of Calmette will be accepted that in the immense majority of cases pulmonary tuberculosis is not contracted by inhalation, but, as taught by von Behring, the germs enter through the intestinal tract."

"Future research may explain how in China, where the consumption of the milk of bovines is practically *nil*, tuberculosis is everywhere prevalent among the natives."

Hydatid Cysts of the Liver in Children.

—Thevenot-Barlatier (Gazette des Hôpitaux) mentions the case of a child 12 years of age, who presented an enormous swelling in the anterior aspect of the body. This tumor was found to be connected with the liver. On account of the existence of a

bulging in the lumbar region a lumbar incision was made in order to secure the best possible conditions for drainage. A cyst was found, having the size of a man's fist, and readily detachable from its surroundings. The wound margins were sutured to the margins of the skin incision. Another cyst was then opened through an incision along the external margin of the rectus muscle. This was likewise readily enucleated. The two cavities were found to be separated only by about 4.5 cm. of liver substance; they were transformed into one cavity and drained together. At the end of a week the anterior wound was allowed to close, the posterior drainage proving sufficient. The patient was quite well at the end of five months after the operation.

Diphtheria of the Skin.—Slater (The London Lancet) describes a case in a girl, thirteen years of age. Three years ago the girl was treated for an inflammation of the eyes. This was followed in two weeks by the development of white patches, with a thin discharge; one on the inner surface of each labium. Blisters then appeared on the vulva, and the lower abdomen; increasing in number until they became generalized. She remained in the hospital for five months, the trunk improving somewhat under local and general treatment. When she came under the author's care a confluent mass of vesicles was noted on the left side of the mouth, extending to the cheek, also groups on the eyebrows, ears, head, neck, shoulders, breasts, upper back, and the vulva. Thin clear fluid oozed out from these patches. Bacterial examination of the fluid showed organisms resembling the Klebs-Loeffler bacillus. Inoculations made into a guinea-pig caused its death; the positive bacillus diphtheria being obtained from the same. Antitoxin injections were immediately begun, with a marked improvement after the first treatment. Fifteen thousand units were administered over a space of two weeks, with the entire disappearance of the lesions. The disease apparently started as an acute attack of diphtheria, the primary seat being the eyes.

Peculiar Accident to a Singer.—Brady (Journal of Laryngology, London) describes a condition of the larynx similar to the rupture of a tendon from muscular exertion. The patient, a singer highly trained, while studying the vocal score of an opera suddenly became aphonic. In 24 hours she recovered the speaking voice, but was unable to sing. Examination of the larynx showed the left vocal cord to be blood red. Evidently a small blood vessel had ruptured in the mucosa, the sudden extravasation of blood between the muscles inflicted a sud-

den blow or shock which interfered with the mechanism of the voice. After 10 days' rest the cord assumed a normal appearance and the artist resumed singing. After three months a similar failure occurred, which disappeared after six weeks' rest except that a small blue spot remained upon the vocal cord, which appeared exactly like the dilated wall of a vein. This case was finally cured by touching the varicose vein with the fine point of a galvano-cautery.

The Treatment of Smallpox by Ichthyol—Love (Glasgow Medical Journal) contributes an article in which he details his experience with this method.

In his series of cases ichthyol was given in doses of 40 grains, administered in the form of chocolate-coated tablets, three times in the twenty-four hours. In a proportion of cases ichthyol was applied externally in the form of an ointment.

The action of the drug was observed in 100 cases, of whom 68 were male and 33 female, their ages ranging between three and sixty years. The treatment was commenced as soon as the patient was admitted to the ward, and was continued until he was sufficiently convalescent to leave his bed. Of the total cases treated six (or 6 per cent.) died, but the cases were not selected in any way with regard to severity, although it is probable that the action of the drug would have been better estimated in cases of considerable severity than in those of a milder character. In 30 out of the total number of cases the eruption was sparse; in 63 the eruption was so abundant, in five it was confluent, while in two it was confluent, while in two it was hemorrhagic in character. With regard to vaccination, four were unvaccinated, but in two of these vaccination had been attempted unsuccessfully in infancy. In an appended table a summary of the cases treated, with the result of the treatment, is given, so that it is unnecessary to enter into any clinical history of individual cases.

In none of the cases observed was there any indication that the drug influenced the disease as regards either its course or severity. That pustulation was not affected in any way is shown by the fact that nearly all the cases ran a full course, and by the incidence of abscesses in some during convalescence. Indeed, the course of the eruption, as well as the complications and sequelæ, were precisely those seen among smallpox patients who have not been subjected to any special treatment. Two patients in whom the eruption aborted were persons who had been well vaccinated in infancy, a considerable degree of immunity being thus indicated, and whose eruption at the time of admission was of that

small, dry character usually associated with a modified development of the rash. Such cases are apt to mislead those who are not acquainted with the clinical aspects of small pox as seen in vaccinated persons, but the frequency with which the eruption aborts in people who are vaccinated indicates unmistakably that these conditions are to be attributed to the influence of vaccination, and not to curative treatment. The case mortality (6 per cent.) is comparatively low, but this cannot be wondered at when it is remembered that out of the 100 cases only five were confluent and two hemorrhagic; in the remainder the rash was of a discreet character, and in 30 of these it was very sparse.

In a certain proportion of the cases dealt with ichthyol was applied externally in addition to the internal administration. The upper limbs were usually chosen for this purpose, because of their accessibility, and the ichthyol was applied by wrapping the arm up in lint which had been quickly smeared with the preparation. The effects of this external administration were as disappointing as those resulting from the internal administration; indeed, in most cases the stages of maturation and crusting were delayed on the limb treated, the pustules remaining soft and crusts forming tardily.

The only conclusion, therefore, that can be come to from these observations of the treatment of smallpox by the use of ichthyol, whether applied externally or given internally, is that the drug is of no value in this particular disease.

Collargol in Puerperal Infection.—

Jeannin (*Le Progres Medical*) says that the properties of colloidal silver are, therapeutically, the following: antiseptic, inhibiting bacterial growth, inorganic ferment exercising catalytic action.

The drug is absolutely harmless and should be used (1) when at the outset the infection assumes a serious aspect; (2) when an infection, at first localized, tends to become generalized.

While there is no objection to the use of frictions (as originally advised by Crede) or intra-muscular injections, the author only employs the method of intra-venous injection. If there is no visible benefit after the first injection in 48 hours another is made and even a third or fourth until convalescence is established. The needle of the syringe punctures the vein directly, without preliminary incision or dissection; and about 10 cm. of a 1 per cent. solution are used at each injection.

The possibility of gas-embolism, transfixion of the vein with consequent thrombosis, minute emboli, hemorrhages from

mouth and uterus, chills and hyperpyrexia, as a result of the injections, is mentioned and passed by as worthy of little serious consideration.

In most cases the injection is followed by a chill and temporary rise of temperature. If at the end of 12 hours the temperature is as high or higher than it was at the outset, before the injection was given, the prognosis is bad. If the temperature remains stationary the prognosis is doubtful. If the temperature gradually drops to the normal the prognosis is good. In all cases the patient seems to be relieved of distressing symptoms even in spite of a persisting high temperature.

Of 43 cases treated, 33 were cured and 10 died—24 per cent. mortality. The author regards this as a good showing because only cases of general septicemia which presented more or less of an alarming appearance were subjected to the treatment.

Sub-Mucous Resection of the Nasal Septum.—Killian (*Bertrag zur. Anat., Therap.*) says that successful local anesthesia is always a matter of interest, and of especial value in this operation. He suggests a perineural injection of cocain and says this is not a difficult matter to bring about.

From Michel's ganglion is given off the naso-palatin nerve, which is the chief supply of the nasal septum. A branch of the nasal nerve, however, supplies the front part of the septum. Four injections should be made: one for each nerve, *i.e.*, two on each side of the septum.

The writer uses a mixture of adrenalin and cocain made fresh from prepared tablets. Ten minutes should be allowed before operation is begun.

In young children this operation, when necessary, can be done successfully under general anesthesia. The author has had such cases in children four years of age.

The Psychology and Therapy of Neurole Symptoms.—Muthmann (*Ref. in Archiv. f. kriminal Anthropologie*) furnishes important information concerning the noteworthy statements of Freud. The reason for the occurrence of hysteria, the anxiety psychoses, and imperative conceptions, is referred by Freud to a displaced highly emotional recollection, an ideation-complex of exclusively sexual character. The essential feature in the treatment is to bring this recollection, with the original emotion, from subconsciousness into the realm of consciousness, and to allow the old emotion to become dissipated, as it were, in order to obtain a complete cure. The treatment may be applied in the waking condition, or during hypnotic sleep, the latter method

alone being utilized by the author. This constitutes the so-called "cathartic method," in which Freud indulges in somewhat peculiar attempts at interpretation. The procedure is illustrated by the writer on the basis of three typical cases, which had a favorable outcome. The author was enabled to discover a sexual etiology in all his cases of hysteria. This is usually denied by authorities as true to such an extent, and as a matter of fact, many cures have been obtained by other psycho-therapeutic measures than psychic analysis. Nevertheless, it would seem that the sexual origin is correct for certain cases, and moreover that a cure is most rapidly obtained by psychic analysis. The objections are that Freud and his adherents are inclined to gross exaggerations, their attempts at interpretation often appearing positively grotesque and repellent (Naecke). The method has therefore been adopted to a limited extent only, although Freud's statements seem to be not only intrinsically correct, but of great primary significance for deeper psychic research.

The Gastric Functions in Old Age.—

In Bull. delle Sci. Med.) Gallerani deals with the researches of Kiargaard and Seidelin on the gastric functions in old age. A number of persons over fifty years of age were examined to test Kiargaard's conclusion that there was a constant defect of hydrochloric acid. The author's own researches have had a much wider scope, including, besides hydrochloric acid, acetic acid, sugar, steapsin, pepsin, and motor functions of the stomach. He selected twelve subjects, well nourished, free from any history of digestive disturbances, all over seventy years and healthy. The size of their stomachs was determined when empty and by insufflation with Frerich's mixture, the motility by Leube Riegel food and with iodipin. In normal subjects iodine reaction can be found in the saliva forty-five minutes after iodipin. Each patient was given on two successive mornings an Ewald-Boaz test breakfast, and the residue was extracted and examined. An hour later Congo's and Gausberg's tests were used qualitatively, and Mintz or Morner's quantitatively for free hydrochloric acid. In its absence the deficit was calculated.

Wohard and Stades' method was used to determine the amount of lipolytic ferment in each stomach washing.

The author, who describes separately and in detail each case, also tabulates over 300 results. His conclusions are: (1) The hydrochloric acid secretion may in old age be normal, but is often diminished. In sixteen out of twenty-four cases there was no

free acid. (2) Steapsin and pepsin are always found, though in varying quantity. At times the figures were highest with normal quantity of free acid, showing no direct relative proportion between the different functions. (3) In old age the stomach is usually languid, and near the extreme limit of normal. In several cases where iodipin was given iodine was not found in the saliva till one and a half hours afterwards.

An hour after a test breakfast the contents of the stomach is from 100 to 150 cubic millimetres; it is abnormal to find 200 cubic millimetres. With nothing noteworthy in the gastric contents, they varied in these old patients from 108 to 246 cubic millimetres; the majority were over 150 cubic millimetres.

Bacteriology of Whooping-Cough.—

Alberico (Brit. Med. Jour.) after referring to the researches of others, describes a diplococcus which he found constantly in 60 cases of pertussis, and which he believes is the specific organism in this disease. The diplococcus, collected from the sputa of the children, consists of two almost spherical (very rarely elongated) elements enclosed in an oval capsule. Sometimes the diplococci form chains of six or eight elements, and in this case the single capsules seem fused into one. The cocci are usually of the same size, about 0.8μ in diameter. They stain fairly well with fuchsin, but best of all with the Ziehl stain. Pure cultures were obtained in broth after 48 hours at 22 deg. to 24 deg. C. He found this organism most readily during the height of the pertussis epidemic, and as this waned so the diplococci became scarcer. In one case of purulent otitis in a child of fifteen months, suffering from whooping-cough, the author found the organism in the aural discharge. Whether this diplococcus is the same as that described by Vincenzi and Litres is uncertain, but in any case the author feels fairly confident that the organism found by him is the specific cause of pertussis.

To Diminish the Danger of Anesthesia.

—Strauch (Med. Klinik.) says that it is important to ensure complete cardiac rest the night before an anesthetic is given, hence he always administers 15 grains of veronal. No bad effects on the heart from veronal were seen, even where it was necessary, owing to delirium tremens, to give 45 to 60 gr. daily. In one case reported, where 5 drams of veronal were taken with suicidal intent, the heart was the last organ to be affected.

One hour before the operation 15 to 20 milligrams of morphin are injected, and the

patient receives an enema of 75 gm. each of cognac, red wine, and tea.

For narcosis, the author uses ether by the drop method, on an Esmarch mask. With alcoholics it may be necessary to employ chloroform at first, but ether should be substituted later. A stage of excitation will never occur, and no case of collapse has been seen in three years. Vomiting after the operation is not so frequent as with the usual methods.

Foreign Bodies in the Sub-maxillary Duct.—Savage (New Zealand Medical Journal) refers to two cases, one of which was an ordinary calculus in the duct of Wharton, interesting in that the associated acute ranula was mistaken for a mass of tuberculous glands secondary to a pre-existing otitis media. In the second case a wisdom tooth was removed from the posterior part of the sub-maxillary gland and duct. The patient was a lady of twenty-five, who sought the aid of surgery on account of a discharging sinus just above and to the right of the hyoid bone, and a swelling beneath the right lower jaw. The full history—obtained after the operation—elicited the fact that four years previously she had teeth removed under chloroform, and vaguely remembered the dentist remarking, "She must have swallowed it." Three months later an abscess on the inside of the angle of the jaw was opened from the mouth; twice in the next twelve months she had her mouth lanced internally. She was then free for two years and a half, when she noticed a swelling beneath the right half of the chin, which shortly afterwards was lanced externally, giving exit to a lot of matter. This incision never healed. Twice after this the swelling was lanced from inside the mouth. On probing the external sinus a hard substance was felt at a distance of $1\frac{1}{2}$ inches from the surface; from the mouth a probe passed downwards and backwards struck the same hard body, and when passed forwards appeared to enter the sub-maxillary duct. A diagnosis of salivary calculus was made, but the before-mentioned tooth was removed through the external sinus, not without considerable difficulty. The fangs of the tooth were broken, and it contained a small cavity in the crown. The external wound closed in eight days, but as the sinus in the mouth healed a ranula developed. This was opened under cocaine, and a silver wire passed into the incision through the structure in the duct, and out at the salivary papilla. After a few days this was removed, and the fistula allowed to close, the proceeding resulting in cure.

Multiple Adenomata of the Rectum.—Elliott (New Zealand Medical Journal)

says that this rare disease has until recently been regarded as identical with the simple adenomatous polypus of the rectum. In 1884 Quenu and Landel collected forty-two cases, and they pointed out the pathological differences which distinguish the simple from the multiple growths. Literature gives no support to the view that the multiple adenomata are the result of the simple growth occurring in childhood. It is a disease of middle life, only a small proportion of cases being found in patients under the age of sixteen.

Their etiology is obscure, and they can only be ascribed at present to the result of irritation of faecal material. They begin in the rectum, and spread gradually upwards; in only 30 per cent. of cases are they confined to this portion of the bowel alone, and there is a marked tendency to malignant degeneration, which greatly increases the gravity of the prognosis.

The tumors vary much in form and dimensions—commonly of a bright red color and soft consistence. Hardness points to malignancy. The pedicle is formed of mucous and sub-mucous tissues and blood-vessels. The mucous lining of the gut is altered, shewing signs of proctitis.

The symptoms are mainly hæmorrhage, diarrhœa, pain, and exhaustion. Large quantities of bright red blood are passed, occasionally mixed with altered and decomposed blood, with an offensive odor. Mucous is passed with the blood. Diarrhœa is very troublesome, owing to its frequency and the griping and tenesmus which accompany it. The growths can be seen and felt in the rectum, and, according to Tuttle, when there are more than one or two growths in this situation, accompanied by the above-mentioned symptoms, it may be assumed that there are others higher up. The condition must be distinguished from malignancy, allowing for the fact that the microscope may shew a simple adenoma, and yet the base may be indurated and have taken on malignant changes. About 50 per cent. of all cases eventually develop adeno-carcinoma.

The treatment is far from satisfactory, and presents unusual difficulties. Diet has but little influence. Drugs, other than opium, do not give relief. The author finds that weak injections of silver nitrate considerably lessen the hæmorrhage, and benefit is obtained by daily irrigation of the bowel with weak antiseptic lotions. He does not consider that surgical measures are more satisfactory than medical treatment. If the adenomata are removed, they return again, and they cannot all be removed, as in most cases they extend up into the colon. The disease is usually ex-

tensive, and the growths may even extend into the transverse colon. The author concludes by giving a full account of his own case of this affection, which he treated by opium and salicylate of bismuth, together with daily irrigation of the rectum with astringent solutions. The patient's age was fifty-one, and after three months' treatment his general condition had considerably improved, and he had gained weight. The ultimate condition of malignant degeneration has always to be borne in mind.

Growth and Changes of Submucous Myomata.—Amann (Monatschr. f. Geburtsh. u. Gynak.) describes the changes which take place in those tumors when allowed to attain great bulk. He reports two cases where the tumors were much larger than a foetal head. The abdomen in the first case was as large as a six months' pregnancy, and it was impossible to find any trace of the uterus on vaginal examination. Operation showed that the uterus proper was represented by a small protuberance on its anterior wall. In the second case complete invasion of the uterus had taken place, and the tumor was prolapsed outside the vagina. Amann further notes that the appendages are frequently affected by suppurative changes, as the result of absorption from the tumor through the lymphatics; and ulceration on the surface of the tumor frequently causes adhesion to the vaginal wall. Another complication which sometimes takes place is cancerous degeneration of the cervix as the result of long-continued friction against the tumor.

Some Investigations of the Nervous Manifestations of Rheumatism.—Poynton and Paine, in The London Medical Lancet, say that they believe there is a great infective process, the rheumatic, to be placed among that series of infective processes in which the staphylococcus, streptococcus, pneumococcus, and gonococcus are to be found, and that the infective agent is a diplococcus, with, in all probability, some peculiar characters. They believe that rheumatic chorea is a local infection of the nervous system and that most of its symptoms are the result of a slight meningoencephalitis, and possibly a meningomyelitis. They give as their reasons: (1) They have isolated and cultivated the diplococcus from the cerebrospinal fluid in four cases of fatal rheumatism, in three of which there was chorea at time of death. (2) They have produced twitching movements, arthritis, endocarditis, and pericarditis by intravenous injection of the diplococcus into rabbits. (3) They have demonstrated the presence of diplococci three times in the cerebral pia, and once in

the brain from chorea cases. (4) They have also demonstrated their presence in the brain and pia of the rabbit that showed the twitching movements. Concerning rheumatic meningitis they incline to the assumption of an acute rheumatic toxemia as contrasted to the multiple and local lesions of chorea. Between the two comes rheumatic meningitis. Hence, they suggest the following sequence: First, mild rheumatic carditis and chorea; second, severe rheumatic pericarditis and rheumatic meningitis; third, acute fatal rheumatic cardiac dilatation and acute fatal rheumatic hyperpyrexia.

The Treatment of Osteomalacia.—Theilhaber (Centralbl. f. Gynak.) treated the case of a woman, æt. 49, by removal of the ovaries. The pains disappeared for a time, but reappeared later when there was uterine hæmorrhage caused by a cervical polypus. The ovaries removed showed no signs of disease. Theilhaber believes that the beneficial results of castration in osteomalacia are due to an alteration in metabolism. The view expressed by some, that chloroform inhalation may be the cause of the cure is negative in Theilhaber's case by the fact that ether was the anæsthetic used during operation.

Sciatica.—Fleming (Med. Press and Circular, London) says sciatica is of three types; interstitial, neuritis and perineuritis, due generally to heat and cold, rheumatism or gout; neuralgia; pressure on the sciatic nerve or roots of the sacral plexus, as in pregnancy, constipation and the like. For the first type write employs large doses of sodium salicylate and sodium bicarbonate, with rest for the limb. Acupuncture is helpful; six sterilized needles are left in place for half an hour. Injections may be used; but never 80 per cent. alcohol or 1 to 2 per cent. arsenic acid. Electricity is disappointing. Breaking down adhesions and nerve stretching are set forth.

Operation on Melanotic Tumors of the Skin.—Pringle (Edinburgh Medical Journal) notes the extreme malignancy of these melanotic growths and the fact that they develop secondary nodules along the course of the lymph vessels and affect the nearest lymphatic glands. He believes that operation should be early and free. The author's method of procedure is to remove the tumor itself by a wide incision, carrying the cut up along the lymphatic vessels to the first and if possible to the second group of lymphatic glands, removing these, together with a strip of subcutaneous and deep fascia. This he advises even

though the resulting wound may be two or three feet in length.

Choleorrhagia After Cholecystostomy—Cure by Diet.—Gross (Centralblatt für Chirurgie) strongly recommends the method of Patel of frequent feedings to prevent the accumulation of bile. The writer reports only one case treated in this way by feeding every three hours day and night, but the flow ceased so rapidly that he considers the method worthy of recommendation. The first day of frequent meals the flow was less than half that previously seen for the two weeks after the operation, the next day there was very little, and after that none at all. Nine days after he was discharged, and five days later the fistula closed.

The Treatment of Eczema of Infants and Young Children by Thyroid.—Eason in the Scottish Medical and Surgical Journal reports a series of consecutive cases of eczema in young children successfully treated by thyroid. In the first case, fourteen months old, the baby had suffered from eczema of the face for nearly a year. This had been entirely resistant to the usual applications and internal treatment, not was hospital treatment more efficacious. Two and a half grains of a thyroid tablet was given daily. In a little more than one month the child was entirely well. His cure persisted for nearly a month, when the disease showed a tendency to recur. The second course of thyroid was followed by a permanent cure. The four other cases gave similar results.

On Haemorrhage from Vaginal Varices in Pregnancy.—Grunebaum, in Jour. of Obst. and Gyn. of Brit. Emp., draws attention to the occurrence of varices in pregnant women. According to Kehrer they are present in 75 per cent. of all cases of advanced pregnancy, either in the legs, vulva, or as hæmorrhoids; von Winckel's estimate is 34 per cent., Budin's about the same, while Carin puts it as low as five per cent. This great difference must depend upon the different views taken as to what is physiological and what pathological distension of the veins. In the second month of gestation one may see a bluish tinge in the vaginal mucosa, and later on, the dark violet appearance of the vagina, resembling the color of the lees of wine, is one of the characteristic signs of pregnancy. Vaginal varices are well known as a pathological exaggeration of this condition, and apart from such troubles as sensations of heat and itching, or the occurrence of œdema, hæmorrhage may occur, and may even be fatal owing to the bursting of a dilated vein or its rupture by accidental injury or coitus.

Grunebaum reports a case of such hæmorrhage from each of these causes: 1. The wife of an innkeeper, who expected her second confinement in four weeks, retired to her room, and from there summoned the maid to come to her, as she was bleeding to death. The girl, in terror, without attending to her mistress in any way, rushed to summon the husband, who was at a carnival, and he, on reaching home, found his wife apparently lifeless. He summoned Grunebaum, who, arriving about half an hour after the husband had been first called, found the woman on the floor in a pool of blood, lifeless and cold. As she had been dead some time, Cæsarian section was not attempted. As was proved by autopsy next day, the bleeding came from a ruptured vaginal varix. The uterus contained a fœtus of the ninth month; the placenta was quite intact, at the fundus and to the right. The first pregnancy and about were normal. For the two or three months previously the woman had had itching of the vagina, but had not consulted a doctor. 2. The wife of a gardener, a woman 38 years of age, in the last month of her eighth pregnancy, while unloading potatoes from a wagon, fell upon an upstanding timber of the wagon which ruptured a bunch of varicose veins at the vaginal entrance. Grunebaum found her lying on the ground with all the signs of great blood loss. After the vagina was plugged she was taken to the Lying in Hospital, where she died two days later. 3. The third case was, fortunately, not fatal. Grunebaum was summoned to the wife of a shopkeeper in the seventh month of her third pregnancy, whom he found in bed, having lost from a quarter to half a litre of blood from the vagina. The patient had tried to stop it by plugging with wool and a towel. On inspection the hæmorrhage had occurred from a small varicose vein at the entrance of the vagina, on the right side. Plugging with iodoform gauze and tying the legs together, stopped the flow. The bleeding recurred on removal of the tampon, but was permanently controlled by transfexion and ligature. The husband confessed that on return from a tavern he had tapped her from behind. The pregnancy continued to term, and after an easy labor the woman had a normal childbed. After quoting several recorded cases—some of hæmorrhage endangering life—during labor, the author, under such circumstances, recommends immediate delivery. This may be accepted, as also the principle of the induction of premature labor in cases of varicose hæmorrhage from the urogenital tract that cannot otherwise be arrested. Practically the induction of labor will seldom affect the case, for the woman's fate will be

decided, one way or the other, before it can be effected. But practically vaginal itching in pregnant women should always make one think of varices, and if on examination such be found, induce one to take precautionary measures.

On a Case of Progressive Paralysis in Childhood.—Woltar (Prager med. Wochenschr.). The patient first began to show signs of degeneration at six years of age, being unable to keep pace with his school-fellows of the same age. He learned to read, write and count with difficulty, and at twelve years old was so backward and showed such obvious signs of mental deficiency that he was sent to an idiot asylum. He appeared to have the development of a child of five years of age; he could not spell, he could not put a sentence together; he was dirty, and his gait was feeble; his knee-jerks increased, and his plantar reflexes definitely of the extensor type. He rapidly got worse, became speechless, only uttering unintelligible cries, and after several attacks of convulsions, died about a year after his entry into the idiot asylum. Woltar recounts the post-mortem findings, which were, briefly, a chronic meningitis with an atrophy of the cortical gray matter, and an atrophy of the pyramidal tracts. The writer mentions a few of the cases previously recorded, and notes the fact that syphilis plays the chief part in the production of the condition. In the present case, however, there was no evidence of a syphilitic infection.

Embolism in Post-Diphtheria.—Escherich before a recent meeting of the Vienna Medical Society (Med. Press & Cir.) produced several preparations which he had taken from patients, where injections had been administered for diphtheria, and death resulting in cardiac paralysis, which happily was not a common accident.

The first was a female child, æt. thirteen months, who died on the sixteenth day. Apart from the morbid changes met with in the pharynx and bronchi, there was a fatty degeneration of the cardiac muscle; the left ventricle distended, and in the apex of the organ was a round mulberry clot, fixed in the trabeculae, which when cut, had a greyish appearance, while fresh infarcts were found in both kidneys.

Case 2 had edema of the cellular tissue, peritoneal dropsy; heart enlarged, soft, and valves intact. In the apex of left ventricle a clot about the size and consistence found in the preceding case. In the right ventricle were a few small clots entangled in the trabeculae in a similar manner.

True and False Perforation of the Uterus with the Curette.—Kiriak (British

Gynecological Journal) discusses this accident with illustrations from his own experience. True perforation depends chiefly on abnormal softness of the myometrium, and is favored by displacement of the uterus, especially so by extreme ante flexion. Experience shows that perforations of the anterior wall are not generally followed by serious results, for as a rule the peritoneum is not perforated; those of the posterior wall generally do pass through the serosa and may cause serious symptoms. False or apparent perforation may depend on one of the following causes: The introduction of the instrument into the dilated ostium of one of the Fallopian tubes, or into sarcomatous, carcinomatous, or, when the accident occurs after abortion or labor, into placental tissue, or from the instrument passing into an extremely large uterine cavity in cases of passive hypertrophy of the organ. False perforation is rare, but it is of practical importance to know that it may occur.

The Treatment of Intussusception in Infants.—Wilkinson, in the British Medical Journal, dissents with the view held by many at the present day that laparotomy should be immediately performed in such cases. The author says that the statistics of St. Thomas' Hospital, the most complete of those recorded, dealing with consecutive cases from 1875 to 1900, point strongly to the conclusion that in children under two years of age the risk is less from non-operative methods than from primary laparotomy, the recovery rate from the former being 40.5 per cent., and from the latter only 27 per cent.

From the year 1897 onward immediate laparotomy was the routine practice at this hospital, with the result that the percentage of recoveries was 30.6, or 10 per cent. less than that obtained by injection, insufflation, and so on.

His own statistics are small—some eight cases in all. Five of these were treated by hydrostatic pressure alone, and recovered. Two were submitted to hydrostatic pressure followed by laparotomy, with one recovery. One case was treated by immediate laparotomy, and died.

The author says that such small figures are quite insufficient data on which to base any general conclusions; but they are nevertheless suggestive, and are supported by the results obtained at St. Thomas' Hospital.

He believes the use under anesthesia of hydrostatic pressure with normal saline solution at a temperature of 105 degrees F., applied through a funnel held at a height of three feet, no attention being paid to the amount of fluid injected, constant pressure and the time element being the important factors. He thinks that failure frequently

arises from the pressure not being applied sufficiently long.

The only certain sign of successful reduction is the appearance of fecal material following the removal of the nozzle from the bowel. Should reduction not follow or should it be but partial, or should there be any doubt about it having taken place, he advocates a small incision over the ileocecal valve without exposing a large area of the intestines. The resulting shock is much less by this method—a partial reduction by hydrostatic pressure renders the subsequent operative procedure much simpler.

That cases of intussusception recover by hydrostatic pressure alone, as also by other mechanical means, is well known to many physicians who have frequently successfully practiced this method of treatment.

Histological Investigation of Bone Transplantation in Man.—Axhausen (Deutsche Zeitsch., F. Chir.) concludes: First: freshly transplanted bone tissue, devoid of periosteum, dies in its entirety; if periosteum be transplanted with bone, this will remain alive, retaining its reproductive functions. The bone marrow may not entirely undergo destruction. Second: transplanted dead bone is gradually replaced by new formation of bony tissue. Third: this newly formed bone tissue originates either, first, in the transplanted periosteum; second, in the transplanted bone marrow and from an ossifying center; third, from an ossifying center, but only when transplantation is made in an ossifying center; fourth, the mode of reproduction is repeated resorption and only be used to supply bone defects in an ossifying center, when new bone formation takes place, as in case three, or where the area may be covered by periosteum, macerated bone acting temporarily only.

The Palmo-Plantar Sign in Typhoid Fever.—Giovanni (Rif. Med.) observed 220 cases of typhoid fever in 6 years and found a yellow discoloration of the palms of the hands and soles of the feet, affecting the most prominent parts; the color varying from that seen after tobacco-stain up to the bright yellow of picric acid, followed at a later stage by desquamation. Out of 220 cases, this sign was present in 216 cases. Usually it appeared within the first week and often before the spleen could be felt or any rash appeared, so that it may be of value as an early sign. It is always bilaterally distributed. He has observed a similar discoloration in some cases of croupous pneumonia and in polyarticular rheumatism; never in scarlet fever, diphtheria, measles, tuberculous meningitis, acute miliary tuberculosis or septicæmia. From th

fact that diminution or abolition of tactile sensibility was observed in many of the author's cases, he is inclined to believe that the nervous system may play a part in the pathogenesis of this curious discoloration."

New Operation in Degeneration of Nerve Trunks.—Gersuny (The London Lancet) has suggested a novel way of obtaining compensation for loss of function of certain motor nerves by suturing the muscle, the nerve of which was destroyed, to another muscle having a different nervous supply, with the object of bringing about innervation of both muscles by one nerve. A man who had suffered from acute pain in the left shoulder-joint had slowly but steadily lost control over certain movements of the arms, so that after five months he was unable to lift it. The galvanic and faradic reaction of the circumflex nerve showed that it had undergone total destruction (neuritis?), so that the deltoid muscle was rendered useless. Dr. Gersuny in the operation exposed the deltoid and trapezius muscles by a long incision from the side of the neck over the acromion down to the arm. The insertions of the trapezius and deltoid on the scapula were divided; the deltoid was pushed underneath the trapezius, and they were fixed together by strong sutures. After the closing of the wound in the skin, the arm was bandaged at a right angle to the thorax in the position of abduction, and two weeks after the operation the arm was subjected to a faradic current, massage and active and passive movement were soon applied, and after three months the patient could lift his arm well. Seven months after the operation the arm could be as easily moved and used as the sound one. The deltoid muscle contracted with the trapezius, but the circumflex nerve did not respond to faradic irritation. The contraction of the deltoid was normal by voluntary action. The application of an electric current caused only a slight contraction. The spinal accessory or eleventh cranial nerve had therefore partly replaced the circumflex nerve in its action.

Metadiphtheritic Scarlatinoid.—Marfan (Le Presse Medicale) says that in diphtheria treated by serum a scarlatiniform erythema is met with more frequently in the cases with severe or moderately severe angina than with those having mild anginal symptoms or croup. The erythema supervenes usually from the eighth to the twelfth day after the injection, though its period of occurrence is not fixed. It comes out over the body generally, sparing the face, and is accompanied by slight fever and other symptoms of acute illness, often ushered in by vomiting. There is almost always an

accompanying redness and swelling of tonsils, with pultaceous secretion in some instances, and swelling of the superficial lymphatic glands in the neck, axillæ and groins. It is to the above syndrome that the author gives the name of "le Scarlatoïde Metadiphtherique," and the question arises, and what is its real nature? The writer points out that it is not due to the serum, since one never meets with it in healthy people who have received an injection, and concludes that it must be an associated or secondary infection, viz., either a streptococci or diplostreptococcal infection, or a true scarlatina modified by the antecedent diphtheria and the serum treatment. He believes that the latter is the real explanation.

Oxygen in the Treatment of Local Tuberculosis.—Redard (*Gazette des Hôpitaux*) recommends the treatment of cold abscesses, whether arising from caries or not, by the injection of oxygen gas or oxygenated water. The skin is first rigorously aseptized, the abscess punctured with a medium-sized trocar, and the pus evacuated. A mixture of 1 part of hydrogen peroxide (8 per cent) with 3 parts phosphate of sodium solution (0.1 per cent.) is then slowly injected into the abscess cavity, a little at a time, the total amount used varying from 2 to 10 c.c., according to the size of the cavity. A small quantity of liquid and gas is allowed to remain, and the opening sealed. One infection frequently cures, but if necessary the treatment can be repeated every ten or fifteen days. Should the abscess have burst or become infected with pyogenic organisms, the injections should be repeated at short intervals; after lavage with the solution a current of oxygen is passed through the cavity for some days. He has used the same methods in the treatment of tubercular osteitis and arthritis, principally when sinuses were present, injecting the gas into the diseased tissues, or even deeply into the joint. Sinuses are washed out with the solution of peroxide, after which a current of oxygen is led into them for several hours under antiseptic dressing. He considers the treatment, and has never seen any harm or inconvenience result from it, even the infiltration causes extensive emphysema.

Puerperal Infection.—Beer (*Wien klin. Wchenschr.*) reports the occurrence of repeated cases of puerperal fever under the care of an otherwise well-qualified midwife. On careful examination, empyema of the autrum in each upper jaw was discovered, probably the result of influenza. With the cure of this focus of suppuration the cases of puerperal infection ended. He believes

that the infection may have been conveyed by the use of a handkerchief between the time of disinfection of the hands and making a vaginal examination.

The Olfantar Reflex and Babinski's Phenomenon in One Thousand Infants.—Eugstler (*Weiner Klin. Wchahrft*) says that in the new-born, especially in premature children, dorsal flexion is the almost universal rule, children in the third year of life presenting plantar flexion. In the course of the first and second years, the relative frequency of dorsal flexion, as compared to plantar flexion, decreases with a certain regularity, amounting to about fifty per cent. at the end of the first year. During the period of transition from dorsal flexion to plantar flexion, the reflex is often observed to be absent; and this is the case, comparatively, frequently during the second year. Babinski's sign acquires the significance of a manifestation of disease only after the completion of the second year. Examinations of rachitic children showed their backwardness with reference to the transformation of physiological dorsal flexion to physiological plantar flexion.

The Behavior of the Cutaneous Tuberculin Reaction during Measles.—G. von Pirquet (*Deut. med. Woch.*) has found from the study of a large number of patients with measles, some of which were known to have tuberculosis, that tuberculous children lose their reaction to tuberculin during the measles attack for about a week. One hundred and fifty-nine patients with measles were examined: 50 only during the week following the beginning of the eruption, and all of these were always negative; 36 negative both during and after the week of eruption; 2 negative before, during, and after the week of the eruption; 6 negative before and after the eruption week, 23 negative, examined only after the eruption week; 3 positive, examined only after the eruption week; 25 examined during and after eruption week, first negative and then positive; 6 examined before, during and after, with respectively positive, negative, and positive results; 1 before and during the eruption week, first positive and then negative; 1 during and after the eruption week, first negative and then positive; and 6 with uncertain reactions. This phenomenon von Pirquet believes to be due to a destruction of the tuberculosis antibodies; in corroboration of this he has found that during measles the tuberculous process has spread considerably in every case in which the condition has been known to exist. The disappearance of the reaction does not occur in scarlet fever, diphtheria, epidemic cerebrospinal meningitis, or typhoid fever. In

cases in which the tuberculin reaction persists or exists during an eruption resembling measles, von Pirquet is certain that the exanthem is other than measles, thus giving the existence of the tuberculin reaction a value from the standpoint of differential diagnosis.

Tracheal Diphtheria with Recurring Formation of Pseudo Membrane.—Herzog (Deutsche medizinische Wochenschrift) had occasion to observe three times in a severe case of diphtheria "econvillonnage" of the larynx. In 1896 Variot and Bayeux described under the term "econvillonnage," a new procedure in the treatment of laryngeal diphtheria.

The method consists in the passing of the tube, just as in the ordinary intubation. The tube which loosens the membrane clinging to the walls of the larynx and trachea, is removed in a few minutes, and the detached membrane is coughed out.

In the following case described by the author, the patient coughed out the tube with a membranous cast of the trachea three times.

J. B., aged two and three-fourth years. Had measles four weeks before coming under the author's observation. Coryza and a hoarse cough for a week, with suffocative attacks for several nights. On examination, an extensive membrane was observed on both tonsils. The nose was clear. Intubation was performed within a half hour after the patient was admitted to the hospital. The tube could be easily introduced, but was coughed out after a few seconds, covered with a membrane which covered it like the finger of a glove. The membrane showed the impressions of the tracheal rings. Ten hours after the first intubation, urgent symptoms demanded a second one. The tube was again coughed out at once, and was covered with the same kind of membrane. Fourteen hours later another intubation had to be performed and the same thing happened. The same tube-like membrane was coughed out. The future history of the case is of no great interest. The patient made a complete recovery.

The use of antitoxin did not prevent the regeneration of the membrane in the trachea which occurred twice in twenty-five hours, but the ease with which the membrane was thrown out was undoubtedly due to the action of the serum.

The Value of Arsenic in Syphilis—Salmon (Annales de l'Institut Pasteur) says that arsenic has been used in syphilis for a long time, the old Donovan's solution being a mixture of mercury, iodide and arsenic. Lately, the cacodylate and the salicylarsinate of mercury have been used exten-

sively, but in all these methods, arsenic was used rather as a tonic, an adjuvant to mercurial treatment, and not as a specific.

On the other hand, atoxyl (arsenic acid anilide, Bechamp) which contains 37.69% of arsenic, has been used by several authors with the idea that it has a specific action against the spirocheta. It is used in the form of injections, the solutions being boiled before using. The strength of the solution varies from ten to fifteen per cent. and the injections are usually given intramuscularly. Atoxyl is also used in the form of ointments by Hoffman and by mouth (Balzer). Clinically it is said to act more rapidly than mercury, and Salmon considers it as a specific remedy for syphilis. In some cases, he was able to avert the appearance of secondaries by the early use of atoxyl. The remedy also has a favorable effect upon tertiary lesions. According to some authors, it is indicated especially in severe types and in precocious malignant syphilis. In all probability, atoxyl acts upon the spirocheta indirectly through the medium of leukocytes. The pathogenic agent, perhaps, acquires a certain amount of resistance against mercury or atoxyl, and, therefore, the two remedies should be administered in alternating succession. Both mercury and atoxyl can be used in combination with good results. Atoxyl is easily eliminated through the urine, but two or three days should be allowed to elapse between injections.

In some patients, the use of atoxyl has led to the presence of symptoms of poisoning, especially of transient visual disturbances, which, in some cases, were followed by atrophy of the optic nerve. These symptoms, however, followed the injection of large doses of atoxyl (1 gramme) frequently repeated. It is prudent not to use the remedy in patients with diseases of the optic nerve or the retina. The dose of 50 centigrammes should not be exceeded.

Neuralgia of the Rectum.—Albu (Berl. Klin. Wochenschrift.) says that within the course of the last few years he was enabled to observe five cases of this uncommon disease, and two other cases in which rectal neuralgia was more or less closely simulated. One of these patients had cancer of the prostate and the other, a tabetic individual, was suffering from "anal crises." He points out that the diagnosis of rectal neuralgia can be rendered by exclusion only, namely, after all organic affections of the rectum and its surroundings have been carefully excluded. The condition is characterized by pain in the rectum, anus and vicinity. These pains are extremely distressing in certain cases, and may radiate

into the buttocks, sacrum, perineum, sometimes along the thighs. The cause is referable to neuralgia of the middle and inferior hæmorrhoidal nerves. Inflammatory conditions, or neuritis, of these nerves may be excluded, and there is probably no more than a functional irritability on their part. In other words, nothing definite concerning the character of the disease can be stated at the present state of our knowledge.

The treatment is purely symptomatic, and should consist in compresses, hot sitz baths, douches of steam and hot water, the introduction of bougies, for the purpose of stretching the nerves, and the administration of analgesic remedies per rectum, subcutaneously or by the mouth.

Association of Scarlatina and Measles

in the Child.—Lereboullet (Le Prog. Med.) states that the association of measles and scarlatina is important because of the gravity of the prognosis in the child. He finds that this association occurs especially in hospitals and at school. Since the incubation period of scarlatina is short, that disease appears first in cases in which both have been contracted at the same time. Here the prognosis is very grave. He considers scarlatina secondary to measles, scarlatina and measles simultaneously, and scarlatina occurring a little before measles. When scarlatina is secondary to measles the evolution of each disease is little modified. The bronchial complications of measles may be rendered much worse and death ensue. When scarlatina and measles evolve together, the mixed eruption may present special characteristics rendering diagnosis difficult. Otitis or bronchopneumonia may occur, but in general there is little modification of the symptoms of the two diseases. When scarlatina precedes measles with a certain interval, the evolution of measles is sensibly modified. A fatal bronchopneumonia may result with dyspnea and high fever. When scarlatina precedes measles at a considerable interval, the prognosis is not so grave. Treatment to disinfect the throat relieves the symptoms before the appearance of the measles eruption. The gravest form of all is that in which the appearance of the measles is immediately preceded by the scarlatina eruption. A virulent culture of the streptococcus exists in the throat and is complicated by the presence of the other infection. A disseminated bronchitis is generally the result. If scarlatina follows measles when the bronchial symptoms have passed, the effect is not so bad. The practical conclusions are that immediate isolation of the patient from all other cases is important

and disinfection of the throat should be thoroughly carried out in every doubtful case.

Fever in Children.—Cantley, in The London Medical Lancet, divides the cases of anomalous fever in children into two groups. The first and most numerous group includes all those in which no definite cause is found on examination, but data can be discovered for a probable diagnosis, which is more or less verified by the course of events. The second group is composed of those cases in which the most thorough investigation fails to reveal the cause of the fever. In most cases fever is due to the direct effect upon the nervous system and so on the heat regulating centres, of toxins produced in the tissues of the body, or in the food before or after ingestion, by micro-organisms or ferments. Feverish new born babies should be examined most carefully for evidences of sepsis, which may originate almost anywhere in the body. It is very improbable that teething is ever a direct cause of fever, but its complications may be so. Among them may be mentioned the bolting of food, local inflammation of the gums, inflammation of the mucous membrane of the month, etc. Many an anomalous temperature is due to inflammation of the throat. In acute follicular amygdalitis, or even in diphtheria, there may be no symptoms referable to the throat. The nasopharynx is a common site of infection. Chronically enlarged and pitted tonsils are a potent source of attacks of fever. In the absence of all other evidence one may have to fall back on the alimentary tract as the possible source of the fever. Carbohydrate fever is a name sometimes given to febrile attacks which are apparently the result of an excess of carbohydrate food and cured by strict limitation of the diet. The fever lasts from one to four days, and may reach 104 degrees F. In some cases there are incessant vomiting and constipation. Any of the infectious fevers in their early stages may give rise to fever of uncertain origin. True influenza is often unrecognized and still more often diagnosed on insufficient grounds. The abdominal type of influenza is often mistaken for appendicitis. The rheumatic poison may cause fever in children in many ways, myocarditis being a cause that is often overlooked. Pyelitis is a cause of fever that is very difficult of diagnosis. Female infants are especially liable to infection of the urinary tract by the *Bacillus coli*. In the bladder it gives rise to little or no fever, bacilluria, and sometimes mild cystitis. It is when the bacillus infects the pelvis of the kidney, causing pyelitis, that it gives rise

to high fever, the cause of which is overlooked, as it is difficult to obtain the urine of female babies for examination. Nervous, excitable children are prone to irregular pyrexia on slight provocation. Undue exertion, chill, and insufficient clothing are sometimes to blame.

The Surgical Treatment of Sciatica.—

Pers (Dtsch. Med. Wchschrft.) summarizes the outcome of his observations in the following statements. (1) Sciatica must be attributed to perineuritis or its sequelæ (adhesions); (2) The detachment and liberation of the affected nerve are followed by an arrest of the inflammatory process, the pain subsiding as soon as the adhesions are broken up; (3) The indications for operative interference are supplied by persistence of the disease, or continued severe pain, or obstinate rebellion against the customary methods of treatment; also by the individuality of the patient; (4) The results may be designated as practically constant, as compared to the results obtained by any other method of treating sciatica; (5) The relapses which were observed to occur in 4.8 per cent. of the cases must be referred for the present exclusively to the imperfect loosening and detaching of the adhesions.

Forty-seven patients having sciatica were operated upon. His mode of incision permits the detaching of the adherent nerve with the fingers from its surroundings. The nerve is grasped at its point of exit from the sciatica foramen, according to the method recommended by Baracz. The treatment is by no means to be considered as at an end with the performance of the operation. Massage should be prescribed as after-treatment as soon as muscular pain begins to make its appearance. The operation may likewise be performed upon patients having arthritis deformans when pain is complained of in the hip, for these pains are not necessarily dependent upon the arthritis, but may be the symptoms of an associated affection of the sciatic nerve.

Puerperal Gangrene of Upper Extremities—

Frankel (Monatschr. f. Geburtsh. u. Gynak.) describes the following case: P., æt. 24, primipara, had normal confinement. Twenty four hours later symptoms of sepsis manifested themselves. Every known remedy for general puerperal septicaemia was tried without benefit. On the twelfth day no pulse could be detected anywhere in the left arm. This was followed by a similar condition in the right arm, gangrene appearing in both. Death occurred on the fifteenth day. There was thus complete absence of symptoms till gangrene commenced simultaneously with the development of cardiac murmurs. No

post-mortem was obtained to clear up the possible causation.

Anatomical Lesions of Diffuse Spinal Amyotrophy in a Newborn.—

Drs. P. Arnaud-Delille and Bondet (Archives de Medecine des Enfants) report the post mortem findings in the case of a child aged 6 months. Dr. M. Comby had observed the child during life, and the present authors quote his clinical report of the condition of child from Arch. d. Med. d. Enfants, September, 1905. The child was born of healthy parents. At birth he was apparently quite healthy, and developed normally until the age of 2 months. Until that time he had moved his limbs quite freely, but since then there had developed a steadily increasing paralysis of both arms and legs. At the age of 5 months, when he first came under observation, he was plump and healthy looking, with an active and intelligent expression. The four limbs were completely paralyzed, as also his intercostal muscles, respiration being entirely diaphragmatic in type. Through the subcutaneous fat it was impossible to detect any muscular tissue. The sphincters were intact. Sensation was normal. All reflexes were abolished, with R. D. of practically all muscles. The child was subject to attacks of asphyxia, and during one of these, while on a visit to hospital for electrical treatment, he was admitted to the ward. Later he developed broncho-pneumonia, and died suddenly from syncope.

At the autopsy the muscular atrophy was found to be extreme, the muscles being merely represented by whitish fibres, difficult of identification, amongst the adipose tissue. The nerve trunks appeared normal, as did also the brain and cord, but the anterior roots were abnormally slender. Histological examination of several muscles verified the extreme atrophy in the great thinning of the fibres, the absence of fibrillation, and the abundance of nuclei. Some fasciculi were completely replaced by connective tissue. The diaphragm had, however, preserved its integrity. Examination of the motor nerves showed that many of the fibres had disappeared, others were degenerate, and only a minority were healthy. The sensory nerves examined were, on the other hand, quite healthy. The anterior spinal roots were atrophied, the fibres had either disappeared or were in a state of degeneration, contrasting markedly with the posterior roots and ganglia.

It was in the anterior horns, however, that the initial and characteristic lesions were noted. Here there was a marked atrophy of the radicular cells; and this became more marked as one passed from

above downwards. Many cells had disappeared, others showed marked chromatolysis and atrophy. There was a certain degree of interstitial fibrosis, but no evidence of any vascular lesion. The posterior horns and white matter presented no abnormality, and the meninges were quite healthy.

From the above histological findings, the authors diagnosed the condition as "sub-acute diffuse poliomyelitis."

Werdig, Hoffman, and Thomson and Bruce have all reported similar cases, but in children over 3 years of age.

Regarding the etiology, the authors could find no evidence of syphilis. The explanation of the condition rested, in their opinion, between the selective action of some unknown toxin and defective development with tendency to premature decay of the cells in the anterior cornua.

The Causation of Miliary Tuberculosis.

—Ribbert, in *Deutsche Med. Wochen.*, objects to the view held by Weigert as to the origin of miliary tuberculosis. The theory that the dissemination of the bacilli takes place through the sudden escape into the blood stream of a large number of bacilli, which at once spread throughout the various viscera, is erroneous. The process is a much more gradual one. On the intima of the vessels are to be found minute tubercles, and they play an important role in the process of dissemination of the disease. In their earliest stage, on making serial sections of the lung, these tubercles are found as minute prominences on the vessel wall, and from these a further propagation of the tubercle bacilli takes place. These germs escape into the blood stream slowly, and not all at once, and hence the dissemination process is not a rapid but a gradual one.

Coxa Valga—Tubby, in the *British Medical Journal*, after defining the term coxa valga, the author passes to the etiology. This may be congenital or acquired. The acquired varieties may be due in the first place to traction exerted by a pendant limb. This is most commonly seen in infantile paralysis where the limb has been inactive for a long period. Coxa valga may also be traumatic due to fracture of the neck of the bone. Functional coxa valga is due to deformity of the weight-bearing capacity of the body, the result of other causes. Among other causes of coxa valga are mentioned rickets, tuberculosis, osteomyelitis and idiopathic development. The symptoms are (1) pain and spasm; (2) limping, especially characteristic is the sailor gait, if the lesion is bilateral; (3) lengthening of the limb, the limb; the limb is abducted and rotated outward,

while the movements of adduction and internal rotation are limited; (4) in bilateral cases the patient stands on the affected limb, the body is inclined toward the affected side; (5) compensatory scoliosis; (6) flattening of the trochanter. The court of last resort is the skiagraph; this must be taken with caution; the author believes it best to take picture in three different positions. The treatment is difficult. Methods consisting in the application of plaster of Paris with the limb in an over-corrected position have proven of no avail in the hands of the author. The best method of treatment is that devised by Gallazzi, which consists in a cuneiform osteotomy with the base inward at the base of the neck of the femur.

Rhabdomyosarcoma of the Prostate.—Grieg (*Brit. Jour. Child. Dis.*) records the removal from a child of four years, by suprapubic cystotomy, of a large irregular, tumor of the prostate the size of a Tangerine orange, projecting into the bladder around the internal urethral meatus. It had caused painful micturition, then retention and dribbling. Microscopic examination revealed a sarcoma containing embryonal striated muscle cells, a rhabdomyosarcoma. Three other such cases have been reported.

Congenital Hypertrophic Pyloric Stenosis.—Cautley (*Brit. Jour. Dis.*) holds that there is grave danger of ascribing to pyloric hyperplasia the symptoms due to spasm, with or without dilatation of the stomach; that there are mild degrees of hyperplasia compatible with life and giving rise to no serious symptoms; that some of these mild cases depend for their fatal issue on second-ary complications which are curable by diet and lavage; that the majority of the cases tend to gradual contraction of the circular muscle and a degree of obstruction which is incompatible with life and only curable by surgical methods. The writer does not delay in adopting surgical measures, as he is convinced that the bulk of the supposed cures of this affection by medical means are really instances of simple pyloric spasm. Great care is essential in distinguishing between spasm and hypertrophy, otherwise many unnecessary operations will be performed.

Diagnosis and Treatment of Tumors of the Posterior Urethra.—Lewin (*Zeitschrift für Urologie*) reports an interesting case of papilloma of the posterior urethra, of which he had observed three cases within the past two and a half years. In all these cases, the patient applied, on account of bleeding, sexual disturbances and premature ejaculations. No way was found to account for

the bleeding, either on cystoscopy or anterior endoscopy. The use of the posterior cystoscope, especially that lately introduced by Goldschmidt, enabled the author to make a diagnosis of papilloma of the posterior urethra. With the irrigating posterior urethroscope of Goldschmidt, the author was able to find a tumor of the size of a bean, situated on the left side of colliculus, and looking like a papilloma. Tumor was removed by means of forceps through the endoscope, and on microscopical examination proved to be a papilloma. About a year later, the patient was found to have papillomata in his bladder, which were removed on suprapubic section. He calls attention to the symptoms of bleeding and disturbances of the sexual function as signs which should lead us to suspect disease in the posterior urethra and should suggest the use of the posterior endoscope.

The Pulse in Pernicious Vomiting of Pregnancy.—Blain (Jl. de Med. et de Chir. Prat.) says: "I do not concern myself either with the loss in weight nor with the intensity of the vomiting. The one feature that I observe with the greatest care is the pulse. Numerous observations have taught me that in women affected with intractable; or better toxic vomiting, pregnancy should be interrupted promptly when the pulse-rate exceeds 100 per minute. If one waits, this measure soon becomes useless because the intoxication of the nervous system proves fatal in spite of a later interruption of pregnancy."

Salicylic Acid from Natural Sources.—Gosch in Calcutta Medical Journal makes a few observations on the salicylates as antipyretics and hepatic stimulants. The writer says there are few drugs in the Pharmacopœia which can excel sodium salicylate in its action on the liver. It stimulates the latter to increased activity, causing an increase in the flow of bile, which is rendered more watery and is, at the same time, excreted under a higher pressure. In ordinary fever with some hepatic derangement and congestion, it has invariably been used with the customary diaphoretic mixture, with good results. Moreover, the general discomfort and the indefinite sort of pain over the whole body, so often complained of by such patients, are, as a rule, relieved by this drug.

When using the drug in large doses, as in acute rheumatic fever, one should always use the salt prepared from oil of gaultheria. This has the advantage of not being depressant and give better results, as it does not contain any of the impurities of the artificial preparation.

Colitis Chronica Gravis.—Rose nheim (Dtsch. Med. Wchschrift) reports a number of cases illustrating the clinical picture of severe colitis, which resembles that of dysentery, but a positive bacteriological differentiation can be made. The patients were youthful individuals, affected with severe colonic disease from simple inflammation to deep-seated ulceration, the process extending over months and years. Intervals of well-being alternated with acute exacerbations, sometimes followed by fever and severe prostration. The gravity of the course in certain cases is probably referable to endogenous auto-infection, or auto-intoxication. The great variability of the clinical picture is presumably based upon the unfavorable influence which the different kinds of microbes exert secondarily upon the local process.

Concerning the treatment, beneficial results may be obtained by a diet consisting chiefly of milk and carbo-hydrates; also by means of the calomel method recommended for true dysentery by A. Plehn. This is employed in such a way that 0.02 calomel is administered 10-12 times daily during three days; after this, bismuth subnitrate may be given, until formed stools appear. In the presence of gastric disturbances, energetic treatment of the stomach is indispensable.

The Prevention of Puerperal Fever.—Zweifel (Centralbl. f. Gynak) advocates the removal of all blood clot from the posterior vaginal vault, where it tends to accumulate after delivery. As a result after this precaution, the morbidity at the Leipzig clinic has greatly diminished. The total mortality from sepsis in twelve years amounted to only 0.19 per cent. The author believes in the use of indiarubber gloves in obstetric work, and differs from Ahlfeld, who believes in the reliability of rapid disinfection of the hands.

Simultaneous Extra- and Intra uterine Pregnancy.—Weibel (Monatschr. f. Geburtsh. u. Gynak) in this paper gives a very complete epitome of all published cases of this combination. Under the heading of etiology, Weibel gives diagrams showing that external migration of the ovum across the peritoneal cavity is necessary before it can enter the opposite tube. He describes a case where pregnancy had advanced to about two months, ending in abortion of the uterine pregnancy, and rupture with formation of hæmatocele in the tubal pregnancy. The uterine absorption occurred previous to the operation for hæmatocele.

Iodine-Benzine Disinfection of the Skin.—Heusner (Centralblatt für Chirurgie) in-

introduces a new method of disinfecting the hands and skin for surgical operations. A 1:1000 solution of iodide in benzine is used in place of hot water, alcohol, and bichloride. About 300 cubic centimeters of the iodine solution is poured into a basin and the hands scrubbed with a brush for five minutes; they are then rinsed in a fresh basin of the solution, wiped dry with a piece of gauze, and rubbed with a 2:1000 iodized vaselin.

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Chronic Constipation.

Every physician realizes that there are various and diverse causes for chronic constipation, and that no single remedy or combination of remedies will relieve every patient. A large proportion of cases, however, appear to be due to hepatic insufficiency and biliary stasis. The natural biliary fluid, when sufficient in quantity and thin enough to flow freely into the intestine, acts as a physiologic laxative or natural stimulant to peristalsis. *Per contra*, when the bile is *not* formed and secreted in sufficient quantity, or in its normal condition of fluidity, or when it is *deficient in the natural bile acids*, a more or less obstinate constipation is likely to result. In such cases, the rational remedy is one which encourages the liver to renewed activity, increases and liquefies the biliary flow, augments the proportion of bile acids in the bile, and thus normally regulates bowel movement.

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Prophylactic Practice.

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Miscellaneous.

New Subscribers for October.

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The Condition of the Eyes at Parturition and During the Puerperium.

Pregnancy and parturition are physiological processes, and while it is true that occasionally they are attended by pathological conditions of the eye (with which alone we are at the present time concerned), it is natural that this should only very rarely be the case. Bosse (Königsberg), however, published an article recently, in which he asserted that distinct alterations were present in the majority of pregnant women. He examined 124 women at the close of pregnancy, and 300 after parturition, and in 75 per cent. of the pregnant women he found decided changes, appearances resembling neuritis, but without subjective symptoms, reddening of the papilla, blurring of its margins, and moderate swelling with parallaxic movements, tortuosity and kinking of veins, but only once a small hæmorrhage. These changes disappeared rapidly after parturition—so rapidly that while on the first day only one-eighth of the 300 patients presented a normal fundus, on the second one-fourth, and on the eleventh two-thirds did so; on the fifteenth all were normal.

To obtain confirmation of these results, or the reverse, Polte (Halle) examined the fundus in 200 women in the puerperium, in 177 of whom he was also able to use the ophthalmoscope before childbirth. Of the 200, three had pyelitis, one had purpura, and eighteen had albuminuria (of whom six had eclampsia); the rest (178) were in normal health. Polte cannot confirm Bosse's results at all; of these 178 (116 of whom he had examined also in their last month of pregnancy) all presented a perfectly normal fundus; he could find no signs of that neuritis-like swelling of the disc which Bosse described, and which, so suspiciously, had no subjective indications. These remarks do not apply, of course, to the cases in which albumin and tube casts were present in the urine; the matter in hand is the condition of the fundus in the condition of "normal" pregnancy and parturition. It certainly on the face of it seems improbable that definite fundus changes suggesting optic neuritis should be present, as asserted by Bosse, in 75 per cent. of pregnant women; one's own experience is more in accord with the results of Polte's inquiries.—Klin. Monatsbl. f. Augenh.

Atrophy of the Iris Associated with General Paralysis and Tabes.

In old-standing cases of iritis a form of atrophy of the tissue of the iris is met with, and also, to a less degree, in high myopia and in mere old age; but these varieties are different from that of which Dupuy-Dutemps writes, and which has not, as he asserts, been previously described. This may occur in sectors of the iris; indeed, often does so, but never in concentric zones. The outline of the pupil when this condition is present is often irregular in consequence. A curious point, which he says is true, is also that while the accommodative reaction is irregular and perhaps segmentary, the contraction of the pupil accompanying closure of the palpebral aperture is regular and uniform. He ascribes the state of the iris, varying as it does in degree and precise locality, to the extent, greater or less, to which the ciliary nerves, both long and short, are involved in the general disease.—Ann. d'ocul., Paris.

The Origin of Hematocele.

By the term hematocele is generally understood an encapsulated hæmorrhage into the pelvic cavity. Much more applicable than the former designations of hematocele retrouterina, anteuterina, lateralis or periuterina, is the term introduced by Sanger of

hematocele peritubaria. According to Sanger also we distinguish between the diffuse form penetrated by adhesions, and the solitary variety which is a single round blood tumor enclosed in a capsule. It is now certain that a hematocele is almost always the result of a tubal pregnancy. The other causes to which it was formerly ascribed, are the exceptions. Nevertheless we should always endeavor to obtain exact anatomical proof in the elements of pregnancy and not throw out of account the exceptional cases. Attention should be directed to hæmorrhage from the non-pregnant tube in salpingitis hæmorrhagica and to hæmorrhage from heart diseases. According to our more recent views, depending upon the work of Werth, we know of the mechanism of hæmorrhage into the pelvic cavity in consequence of tubal pregnancy and tubal abortion, and the erosive action of the growing ovum. In connection with tubal abortion we know of the formation of the hematoma from successively recurring hæmorrhages, as also of the formation of hematoma-moles and the manner in which the ovum leaves the tube being associated with hæmorrhage into the abdominal cavity. When the tube ruptures it is also important to know the various ways in which this may occur, as also of primary and secondary rupture. It has been shown that Schroder's views of a hematocele developing beneath an old, primary complete sacculization is only true of the exceptional cases. The sac of a hematocele is not the cause, but the consequence of the hæmorrhage. Veit has shown that previously existing adhesions favor coagulation and encapsulation. But it has also been proven that the previous existence of adhesions is not necessary for the formation of a hematocele. Other authors have also pointed out the possibility that the admixture of tubal secretion or of ovarian portions may influence coagulation and capsulation; and Busse has suggested that chronic inflammatory changes of the pelvic peritoneum impair its resorptive powers. Werth does not believe that chronic inflammatory processes always accompany the first stage of tubal pregnancy. It is generally held that the coagula themselves cause the formation of adhesions. A larger collection of blood may occur in the pelvic cavity where there are no loops of intestines to favor coagulation. It is questionable whether the conditions for absorption are equally favorable in the pelvis as in the upper part of the abdominal cavity; the influence of peristalsis is also absent. The author also reports some experiments upon animals, the results of which may be summarized by saying that they in the main confirm and emphasize the above statements.—Zentralbl. f. Gyn.

Some Points in the Differential Diagnosis of Scarlet Fever, German Measles and Measles.

Poynton (British Medical Journal) discusses the diagnosis of scarlet fever, rubella, and measles. In scarlet fever the difficulty is not with the severe cases, but with the mild ones. The author is not yet convinced that the disease is not to be transmitted by desquamation; as long as the real cause of scarlet fever is unknown we are not justified in experimenting upon this point. Some physicians hold that influenza may be associated with rashes very closely resembling those of scarlet fever; the same is true of dengue fever. In German measles there are two types of exanthem: the morbilliform, which is more common and characteristic, and the scarlatiniform. Both last two or three days, are apt to itch, and may be followed by a fine branny desquamation. The most constant sequela is the occurrence of a secondary sore throat about the fifth day. As regards Dukes's so-called "fourth disease," an epidemic rubella usually classed under

rubella, the author holds that its existence has not yet been proved, although he does not deny the possibility of its existence. He calls attention to the great value of Koplik's spots in the diagnosis of measles. Never crowd cases of measles together; if it is absolutely necessary, then pick out the cases of bronchopneumonia, as otherwise it will spread fast among them.

Beer-Drinker's Heart.

The fairly familiar and accepted view is that this condition is due to a condition of plethora vera and is merely an expression of a continued mechanical effect or strain, and not in any way due to the toxic effects of alcohol itself.

Kefersten (Zeit. für Diät. und. Phys. Therap.) however is of an adverse opinion, and considers that the toxic effect of alcohol is the main cause of the cardiac changes. He argues that if it is supposed that the need of the body for nutrition is increased, and that all metabolic processes are more active than normal, and these are supplemented by over-drinking and over-feeding, the work of the heart *pari passu* will be increased, but not by any mere mechanical process, and that apart from such a supposition, it seems impossible that plethora vera can mechanically increase the work of the heart, for experimentally it has been proved that water directly injected into the veins of animals has been rapidly excreted by the kidneys, so that the arterial pressure is but temporarily raised, besides which it must be remembered that the heart is so constituted physiologically that it can bear continually the recurring changes in the amount of work thrown upon it, without in any way suffering from the effects of an over-strain.

Given an unaltered need for tissue nutrition, the flow of blood will not be increased, the only effect being a distension of the most distensible part of the vascular system, viz.:—the veins.

The condition of plethora serosa however stands differently—here the number of cells in any given mass or blood is diminished and as such a greater mass must pass through a given capillary area to sustain the nutrition of the tissues, and if other conditions are supposed to be constant, the heart must labor harder to meet the demand of nutrition by presenting a more accelerated stream of nutritive elements, on the other hand the viscosity and adhesion of the blood being diminished, the friction with the vessel walls will be diminished, and the work of the heart to this extent lessened. Both these factors must act together. Kefersten arrives at these conclusions: (1) The results of experimental and clinical work go to prove that changes in the heart such as are found in the so-called "beer-heart" cannot be brought about only through excessive intake of fluids; and (2) neither the heart changes which are recognizable due to alcohol nor those which some authors regard as due to the intake of an excess of fluids, can be constructed and explained mechanically from a consideration of their causes.

That the toxic elements of alcohol are responsible for a multiple of sins no one will deny, and though in the main these elements are the most potent in bringing about the cardiac changes yet the mechanical factor in such cases must not be given a too meagre place in the causation of such cardiac conditions, for the initiated morbid conditions by the toxic elements are undoubtedly maintained and aggravated by the frequent, though not constant condition of heightened arterial tension.

The Treatment of Gastric Hyperacidity and Hypersecretion.

The principal and typical form of this gastric affection is nervous hyperacidity. Here an albu-

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J. S. TYREE, Chemist, Washington, D.C.

minoid diet, although apparently beneficial, has no permanent favorable effect upon the condition. The tendency to hyperacidity may, on the other hand, be gradually controlled by a vegetable diet. Great care is, however, necessary in the selection and preparation of the cereals, vegetables, and fruits; also for the avoidance of bloating and indigestible articles of food. The vegetable proteids are best, together with a moderate use of meat. Of the fats, good sweet butter, cream (eggs), and, in some cases, olive oil by the spoonful, are especially recommended. Frequent small meals are advisable, especially late at night and early in the morning. It is useful to wash the stomach, especially in the evening, in order to secure a good night's rest. After this procedure, some alkaline remedy should be given internally. In many cases a powder of belladonna, bismuth, magnesia, and sodium bicarbonate proves valuable. The introduction of large amounts of fluid is contraindicated.—Albu. Therapie der Gegenwart.

Hepatoptosis, Glenard's Disease, and Movable Kidney.

The symptoms which may arise from the abnormal descent of one or more of the abdominal viscera are so various and vague that the sufferers are often put down as neurotics; but Watson Cheyne believes that in many of these cases the supposed hysterical ailments are very real. He advises fixation of the kidney by operation when it is movable and causing symptoms, and thinks that most of the failures after nephrorrhaphy are due to the kidney being sutured too low down or that the kidney condition is only part of a general enteroptosis. Hence before operation this condition should be carefully studied and if there is evidence of hepatoptosis or enteroptosis, these must be attended to

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before the kidney is dealt with.

Hepatoptosis is to be distinguished from simple dislocation of the liver, for in the former the liver is rotated forward and to the left, so that the right lobe may reach the pelvis and the left lobe be in the right hypochondrium in bad cases.

The symptoms are very vague but there are usually various gastric troubles, such as meteorism, vomiting and dyspeptic symptoms. A general sense of abdominal discomfort is often present from the weight and faulty position of the liver. The physical examination will give a positive diagnosis and it should be made with the patient in both the recumbent and erect postures.

The treatment usually consists of a rest cure and the employment of abdominal belts or bandages. The author has recently made two attempts to fix the liver in its normal position, and in both cases, at first at any rate, with remarkable relief to the patients. The liver should first be replaced by rotation backward and to the left and should be retained by sutures. In the second case, Mr. Cheyne first introduced a couple of silk sutures high upon the surface of the liver, carrying them under the capsule of the liver for two inches, and then passed the ends through the surface of the diaphragm, and when these were tied the liver was held in place. In addition one or two vertical sutures were passed towards the lower margin of the liver, the ends brought out above and below the costal cartilages and tied. Lastly, the free edge of the liver was stitched to the peritoneum and the muscular walls of the abdomen along the greater part of its course.

The after treatment consists of confining the patient in bed for six weeks and applying a pair of Gallant corsets before she is allowed up. Enteroptosis is usually treated with the Gallant corsets, but many operations have been attempted with more or less success. The author thinks the best surgical measures, where no hepatoptosis exists, are

shortening the gastro-hepatic omentum and suturing the abdominal wall so as to bring the recti muscles together.—The London Lancet.

Pulmonary Gangrene in an Infant Eighteen Months Old.

Thirion observed this case. Pulmonary gangrene is rare in young children, especially in those under two years of age. The child whose case is here reported was brought to the hospital with grave pulmonary symptoms, and the diagnosis of tuberculous bronchopneumonia was made. A focus was noted at the right apex which was thought to be a cavity. The illness had followed an attack of measles six weeks before. Although the child was carefully treated at home, it gradually became worse, and was put into the hospital. On the day following its entrance, a fetid odor was noticed, but it was supposed to be due to the diarrhoea from which the child suffered. Death occurred on the following night. Tuberculous bronchopneumonia was discovered at autopsy. The right apex was found to be gangrenous. The writer remarks that it seems remarkable that this gangrenous condition did not give any sign of its presence till the last hours of the child's life.—La Presse Medicale.

Neurilla.

This is a valuable remedy for nervous patients, more especially for those female patients who are passing through the climacteric. It is a bitter tonic, creates appetite, builds up the patient and at the same time quiets the nerve centers. Try it instead of some fashionable synthetic or coal tar dope. Dose, teaspoonful four times a day.

The Charlotte Medical Journal.

VOL. LVIII

CHARLOTTE, N. C., DECEMBER, 1908.

No. 6

Pleurisy and Pneumonia Secondary to Inflammation of Intra-Abdominal Organs.†

By G. Paul LaRoque, M. D., Richmond, Va.

An exhaustive study of this subject justifies a statement of at least two facts, which I am prepared to prove from a study of clinical cases, autopsies, and a review of the essential facts of pathology and anatomy of the abdominal and thoracic cavities:

1. Pleuritic effusions and pneumonia are very much more commonly secondary to inflammation within the abdomen than is generally believed.

2. The terms "ether pneumonia" and "anaesthetic pneumonia" are unjustifiable. These agents play a very insignificant, if any, role in the production of the affections. In cases of pleurisy or pneumonia following abdominal operations, I would emphatically deny that the anæsthetic is causative.

Five years ago I operated upon my first personal case of typhoid intestinal perforation. The man was desperately ill and at the time of the operation was suffering with hypostatic congestion of the lungs prohibiting general anæsthesia. The operation was performed under cocaine anæsthesia. Two perforations in the caecum were closed. The patient recovered from the effects of the operation and four days later developed pneumonia, which was fatal in twenty-four hours.

In September, 1907, I was called to the country by Dr. George Davis to operate upon a patient for sub-diaphragmatic abscess. This man (Case No. 894), previously in good health, was seized three weeks before the operation with an ordinary attack of acute appendicitis. Four days before I saw him he began to expectorate large quantities of muco-purulent material. From these signs, together with flatness over the base of the right thorax, Dr. Davis made a diagnosis of sub-diaphragmatic abscess with empyema and rupture into a bronchus. I confirmed the diagnosis, made an incision at the point corresponding to the site of the abscess below the diaphragm, removed a pint of pus, drained a sinus leading to the caecum and another leading to the pleural cavity. The patient made a good recovery.

In December, 1906, a robust, middle aged man (Case No. 761) was brought to Dr. Stuart McGuire's clinic at the Virginia Hospital, suffering with pain over the re-

gion of the eleventh and twelfth ribs posteriorly on the right side, hectic temperature, cough, muco-purulent expectoration, and physical signs of peri-nephritic abscess and of empyema ruptured into the bronchus. Dr. McGuire drained the peri-nephritic abscess and the patient made a prompt and complete recovery.

In the spring of 1907, a colored woman (Case No. 787) was admitted to Dr. McGuire's clinic with widespread peritonitis secondary to rupture of a pelvic abscess. She was operated upon promptly and the peritoneal cavity drained. A week later she developed a hacking cough and rapid respiration, and physical examination revealed a pleural effusion three fingers in breadth on the right side. At the end of two weeks the pleural effusion had disappeared co-incidentally with the healing of the abdominal wound.

At the present time there is a fifth case under observation at the Virginia Hospital operated upon ten days ago for the drainage of a large peritoneal abscess. Four days after operation physical examination revealed a small pleural effusion on the right side, which has now disappeared, leaving only the signs of thickening.

During the past summer I was informed of a sixth case occurring in the practice of my friend, Dr. Stuart Michaux, in which after the removal of an acutely inflamed appendix and drainage of a small abscess, the patient developed two weeks later the physical signs of a pleural effusion from which he recovered promptly and has since been well.

In none of these cases was there any evidence of tuberculosis, though repeated examinations were made.

In looking over old case records, I find in the fatal cases of diffuse peritonitis frequent notes that they died of pneumonia. These, in the cases in which ether was administered, were attributed to ether, while those in which chloroform was used were assigned to "taking cold." Since, however, the question of anæsthesia pneumonia is at the present time denied by all students of the subject, it is unnecessary to take further consideration of the variety of anæsthetic employed. The fact is there are a sufficient number of cases of pleural effusion, pneumonia and empyema recorded, in which the obvious cause was so clearly a septic focus within the abdominal cavity that surgeons must be continually on the watch for intra-thoracic complications in such cases.

†Read at the meeting of the Medical Society of Virginia at Richmond, Va., Oct. 20-23, 1908.

A comprehensive study of this subject has been exceedingly profitable, and I will quote some figures based first on autopsy findings in patients on whom no operation had been performed; second, on large numbers of clinical cases recorded, and finally on experimental research.

In the City Hospital of New York₁ in one year 181 autopsies were performed. Of these 40 cases (or over 33 1-3 per cent.) showed association of pleurisy or pneumonia, or both, with inflammatory diseases located within the abdomen. The various intra-abdominal lesions included bile tract infection, pancreatitis, cirrhosis of the liver, syphilis of the liver, suppurative lesion of the kidney, acute inflammation of the supracapsular capsules, splenitis, peri-splenitis and infarction of the spleen, sub-phrenic abscess, gangrene of the liver, inflammation of the mesenteric and retro-peritoneal lymph nodes, hemorrhagic gastritis, gastro-intestinal ulcerations, uterine fibroids, endometritis, and malignant disease of the peritoneum. These cases do not include the tuberculous infections nor the cases of pleurisy having their origin in the lungs, but are limited strictly to those in which the pleural or pulmonary complications were associated primarily or secondarily with intra-abdominal infection.

A clinical study of the causes of pleurisy based on 500 cases reported by Fraley from the Pennsylvania Hospital₂ reveals some interesting facts. Of these 26 cases, or 5.2 per cent., were traced directly as a secondary result of intra-abdominal infection. In 12 of these the pleurisy was an immediate complication, while the remaining 14 followed the abdominal disease within six months. Of the total 500 cases 249 were complicated by lesions elsewhere than in the thorax, and of these 17, or approximately 7 per cent., occurred with inflammatory lesions within the abdomen. In 233 of the 500 cases a definite exciting cause was determined. Of these 12 were attributed to primary intra-abdominal infection, one to anæsthesia, five cases followed typhoid fever while the patients were in the hospital, two were caused by appendicitis, two by abscess of the liver, one by sub-phrenic abscess, one by cholecystitis, and one followed acute "gastritis."

Six hundred cases of lobar pneumonia were studied by Tuttle and Carter₃ in the Presbyterian Hospital in New York. In 82 cases the pneumonia was positively attributed to other diseases, and of these 21, or nearly 25 per cent., were secondary to such intra-abdominal infections as typhoid fever, gastro-enteritis, bile tract infection, cirrhosis and syphilis of the liver.

Of 500 cases of pneumonia in children

reported by John Cooke₄ of Chicago, 3.8 per cent. were distinctly secondary to ileocolitis.

This gives a total of 1600 cases of pleurisy and pneumonia studied, and in which it was clearly determined that the thoracic disease was secondary to intra-abdominal infection in 83 cases, or 5.2 per cent. Of all the exciting causes of pneumonia and pleurisy the only ones which exceed in frequency intra-abdominal infection are diseases of the respiratory apparatus, "taking cold" and rheumatism. The latter acts more often only in the production of pleurisy. Thus, of Fraley's cases 148 followed pulmonary disease, 46 followed rheumatism, 14 followed intra-abdominal infection within 6 months. Of 233 cases in which the exciting cause was definitely determined 65 followed taking cold, 42 followed bronchitis, 52 were caused by pneumonia, 14 by phthisis, 15 followed traumatism of the chest such as broken ribs and contusion, 5 acute rheumatism, 12 were caused by drunken debauch, 12 followed intra-abdominal infection. This leaves only 16 cases following all other causes combined, and 4 of these are attributed to obstinate constipation and obstinate vomiting.

To view the subject from the other point, namely, the determination of what percentage of abdominal cases are complicated by pleurisy, is a very much more difficult task owing to the incompleteness of case reports. It is worthy of note that few writers have emphasized pleural or pulmonary lesions as complications of peritonitis and other intra-abdominal infections, but a careful study of the case histories in recent articles by Blake₅, Hotchkiss₆, Murphy₇, Harte and Ashhurst₈, Scott₉, and others shows clearly that pleural and pulmonary infections are by no means uncommon, both before and after operation.

Caro₁₀ believes that at least 16 per cent. of all cases of cirrhosis of the liver are complicated by pleurisy. Villani₁₁ claims that a small pleural effusion on the right side is a constant result of cirrhosis. Auerbach₁₂ emphasizes the great frequency of pleural effusion with sub-diaphragmatic abscess, and found this complication in 101 of 179 patients examined. Tilger₁₃ found in 122 cases of general peritonitis that 25 per cent. of them had pleurisy. This observation is confirmed by Auerbach. The same percentage was found at the Charité in puerperal peritonitis.

As a complication of typhoid perforation, it has been noted that pleurisy and pneumonia occur almost as frequently when the patient is not operated on as when he is.

Of 13 deaths occurring in the Gynecological Department of Mount Sinai Hospital,₁₄

New York, two were caused by pneumonia secondary to puerperal infection and neither case was operated upon. One case died of abscess of the lung secondary to pelvic abscess about two weeks after a small vaginal incision.

The question of the etiology of post-operative pneumonia, especially those cases previously attributed to anaesthetics, has been pretty definitely settled within the last few years.

At the German Surgical Congress in 1905¹⁵ many interesting and practical facts were established. Czerny believes that the anaesthetic has no relation to the development of pneumonia, but that the infection in a large majority of cases reaches the lungs and pleura from the abdomen by way of the lymphatics perforating the diaphragm, and in some cases as the result of the aspiration of pneumococci. He reports thirteen hundred laparotomies in which post-operative pneumonia developed in 52 cases; of these 14 were secondary to operations on the bile tract, 24 to operations on the stomach, 11 to operations on the female genitalia, and one followed appendectomy. From these figures it is obvious that the liability to thoracic disease is increased when the suppurative process is located in proximity to the diaphragm or in the pelvic organs. Czerny believes that the frequent thoracic complications following operations on the pelvic organs is accounted for by the use of the Trendelenburg posture, thus allowing infection to gravitate to the upper abdomen. In 52 cases pneumonia was a complication.

Three thousand two hundred and forty-eight operations performed on structures in various regions of the body studied by Henle¹⁶ revealed that pulmonary complications were found in 5.3 per cent. When, however, only the abdominal operations were considered, pulmonary complications were found in 11.3 per cent. Trendelenburg¹⁷ reports that 5 per cent. of all patients upon whom laparotomy has been performed develop pneumonia, and states that this complication has long been shown not to be due to ether any more than to chloroform. Kroenlin¹⁸ from 1409 cases determines that 5.6 per cent. suffered post-operative pulmonary complications.

The anatomic and pathologic reasons for the frequency of pleurisy and pneumonia during the course of an abdominal infection have been clearly shown from laborious scientific work conducted in the last three years. In 1905 Payr¹⁹ found experimentally that carmin, when injected into the diaphragm of dogs, was found in eighteen minutes in the lymphatics as high as the bronchi, and only after twenty-five minutes

could it be detected in the carotid artery. Muscatello²⁰ has shown that normally there is a flow of lymph from the various portions of the peritoneal cavity to the diaphragm, and he also noted that colored particles of fluid injected into the peritoneum were taken up first into the base of the diaphragm and then into the lymph spaces beneath. Dubar and Remmy²¹ after injecting carmin into the peritoneal cavity, recovered it from the thoracic duct in seven minutes. Kolossoff Maccallum²² and others have shown that lymphatics from the peritoneal surface penetrate the diaphragm, emptying into the mediastinal nodes.

The most actively absorptive portions of the peritoneum are the diaphragmatic and omental areas; the greatest amount occurs at the diaphragm. Durham²³ found bacteria in the lymph nodes of the anterior mediastinum six minutes after the injection of septic material into the peritoneum. The mediastinal lymphatics become turgid with blood very soon after the beginning of peritoneal injections. Buxton and Torrey²⁴ found the lymphatics in the anterior mediastinum distinctly blackened in from ten to fifteen minutes after the injection of lamp black into the peritoneal cavity.

All of these experiments definitely prove that the diaphragm is a very important route of transmission of infection and even of inert material from the peritoneum to the thorax.

When, however, the infection is of puerperal origin the process is primarily sub-peritoneal, and it has been conclusively shown from the studies of Murphy²⁵ and others that the sub-peritoneal tissue possesses great absorbability.

It is unfortunate that the cause of all deaths following peritonitis cannot be definitely determined by a complete autopsy. There are, however, a sufficient number of cases to demonstrate that pneumonia and pleurisy are exceedingly common. Most writers dismiss the subject with the statement either that such complications are rare, or attributable to the anaesthetic, both of which statements are false.

Deductions from this valuable experimental work indicate clearly that when bacteria are brought into relation with the lymph spaces within the peritoneal cavity they are conveyed very quickly through the lymphatics of the diaphragm and mesentery into the lungs and pleural cavity, and if conditions are suitable pneumonia and pleurisy are the results. It is a significant fact that in general peritonitis the right pleura is by far the more frequently affected. In 30 cases reported by Auerbach²⁶ the right pleura alone was affected

in 13, the left alone in one, and in 10 cases the effusion involved both pleural cavities. It has been as a rule expected that the pleurisy and sub-phrenic abscess occur on the same side, the right especially, as it has been shown that no free communication exists between the right and left lymphatics of the diaphragm. The frequency of involvement of the right pleura and lung is explained by the anatomic fact that the trans-diaphragmatic perforating lymph channels are limited to the right side in 75 cent. of the cases, and also on account of the relative prevalence of peritonitis originating on the right side, and finally from the relation from the capillary space just above the liver, at which point suction occurs.

Conclusions.

(1) Pleurisy and pneumonia are much more frequently caused by infectious diseases within the abdomen than has hitherto been believed.

(2) The right side is more frequently involved than the left.

(3) It is the duty of surgeons to constantly bear this in mind and carefully examine their patients for pleural and pulmonary complications during the course of intra-abdominal infections and after operations.

(4) The frequency of abdominal infection as a cause of pleural effusion and pneumonia calls for a painstaking examination of the intra-abdominal organs in each case in which the signs of intra-thoracic inflammation exist.

(5) The infection of the pleura and lung following intra-abdominal inflammation is conveyed through the diaphragm, omentum and mesentery by way of the lymphatics.

(6) "Ether pneumonia" does not exist and the term anæsthetic pneumonia should be entirely discarded.

(7) When during the course of an intra-abdominal affection, pneumonia or pleurisy should be discovered, they constitute no contra-indication to operation, but on the other hand urgently call for drainage of the primary focus of suppuration.

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What is the Maximum Dose of Iodide of Potash? Especially in Specific Iritis or Elsewhere in Local Syphilitic Manifestations?†

By Arthur G. Hobbs, M. D., Atlanta, Ga.

It would seem that it has almost no limit in some virulent and fulminating forms of syphilis. We may push it by grains, daily, in arithmetical progression even up to an ounce per day, and yet not have the classical symptoms of iodidism. In such cases, the first suggestions of the equilibrium having been reached or passed, between the antidote and the virus, will be some derangement in the metabolic process—some gastric, pancreatic, hepatic, renal, enteric, or duodenal irritation, with probably no other symptoms of iodism. On the other hand we all know that neither you nor I could long take 10 grs. or 5 grs. or even 2 grs. three times per day without some symptoms of digestive interference.

It is now generally conceded that aloin and some saline are antidotal to iodism, especially if the symptoms are most pronounced in the enteric and duodenal region as a result of too large doses of iodide of potash. This would indicate that the dose used was larger than necessary to neutralize the mild inoculation or, possibly, prove a wrong diagnosis.

This salt would then seem to be a test—ague almost—to estimate the virus quantitatively. We must also remember that pseudo-syphilis is not a myth—some—many cases have been damned both mentally and morally by such a mistaken diagnosis.

As the "proof of the pudding is in the eating" so the amount of the salt that the

†Read before the recent meeting of the Southern Medical Association at Atlanta, Ga.

patient can neutralize, and fatten on, and improve upon, is a measure of his infection.

In a fulminating, virulent, gummatous condition, often on a mucous membrane, but especially, if on the iris, the daily dose of iodide of potash is not to be measured by grains, but by its results. Eight to sixteen ounces of sweet milk should be given with each large dose, as an accipient and as a neutrient.

In such cases as iritic glyoma, the danger is either blindness or over iodism. Risk the latter, 'tis easier to overcome than an iritic synechia. 'Tis true, we are "between the devil and the deep blue sea," but some of us can swim better than we can scrap with his satanic majesty.

We have tried many formulas of combinations of iodine with other bases that have been extolled as superior to the potash salt alone, but each time that I have tried them in virulent cases, the patient has come to grief, or has threatened to do so, and so have I! But not for long, as I quickly returned to the single salt in larger doses.

This subject does not allow me to go into the other, and probably as necessary adjunct treatment. We cannot, at least I do not, dare to leave off that classical Molluch-Hydrargium in some of its forms, even to test this salt alone. As the one is slow and the other rapid, perhaps the one is the balance wheel and the other the fly wheel in the antidotal mechanism of combatting this virus that we call syphilis.

The old and time honored terms: primary, secondary, and tertiary syphilis do not always have sufficient objective symptoms for their demarcation, as we usually have to depend on the subjective symptoms and the history of the case. We must ask many questions sometimes, before we can be sure of the first or of the second or even of the third stage. Then why not be frank with ourselves and with our patients too in these demanding cases, and at once use this salt in large doses?

When in 1888 I first began to push this salt, to what was then thought to be an extreme dose, I had no precedent other than to call a halt at the first symptoms of iodism.

In October of that year, Col. S., age 45, came to me with a fulminating specific iritis and a well developed gummatous chancre on the left tonsil. His vision was almost nil. Both corneas protruding, and a tension of x 3.

He was given 80 grs. of iodide potassium on the first day which was gradually increased to one oz. on the 15th day. Then only slight symptoms of iodism. He looked better, felt better and his vision had increased to 5/200. The dose was then rapidly

decreased during the next 15 days. He had already taken 8 oz. during the month, and during the next two months, he took 2 oz. more. He had gained 10 lbs. His vision, with properly fitted glasses, was better than before, but with some synechia left in one eye. I will only mention that he had the concomitant treatment of the proto-iride, atropia and nitrate of silver. This case of Col. S. was seen in my office with me, by Drs. Olmsted, Jarnigan, Geo. Crawford, Longino and others. The result was good—better than any of us had expected that it could be.

Still another effect of this salt is the softening of old cicatrices, and large doses can be resorted to for this purpose when such a result is occasionally desired. I will cite one of these rare cases where we wish to reach such an end.

A young lady, three years before I saw her, was inoculated, innocently, through a finger abrasion. The systemic virulence was so great that the soft palate was broken down by ulcers, with the final result of a complete adhesion to the post pharyngeal wall. The case was, of course, illy treated, both locally and constitutionally. (But this point is not apropos to the subject). The voice naturally was most unnatural, and with no drainage for the secretions from above I have no doubt she felt them dammed in more ways than one.

In order to soften the rigid adhesions, I gave her 50 grs. of the salt daily for 10 days, together with antiseptic nasal irrigations. Then I made the Heinz-Jackson operation of separating the adhesions with a dull knife, leaving only a thread at the root of the uvula. This last was to hold the antiseptic cotton compresses, during deglutition; when the surfaces were seared, the remaining adhesion was clipped. But for the softening effect of the iodide, the best result of the operation would not have been reached.

Her voice was practically restored, and as she breathed better she slept better. The cosmetic effect on the pinched appearance of her upper face was marked, and she gained 12 lbs. in a few months.

The great Syphiligrapher, Ricord of Paris, was the pioneer of large doses of iodide of potash in fulminating specific cases in the larynx, pharynx and post nasal space, but he did not then think it possible that he could give one oz. or even one-half an oz. in 24 hours. This doctor's office hours for females were from 5 to 8 p. m., and for males from 12 to 4 a. m. It has been told of him that he went with some friends to the Grand Opera one night where they unexpectedly heard the great Fourcher sing. This tenor was an old patient of his,

with syphilitic laryngeal ulcers. Ricord led the applause and the encores when he sang. Ricord's friends, who knew that he had no idea of music, were amazed: "What is the matter with you, Doctor. You seem to like the music of Fourcher?" He said, "No, no, damn the music, I am anchoring the iodide of potash." Dr. Ricord had sent this tenor to Switzerland for two years, under large doses of this new salt, but he unexpectedly returned in one year to set Paris wild with his restored voice and to make his doctor applaud and enquire him.

One more case, a cow boy from Texas, age 22, was brought to me in 1890 by his uncle who then lived in Atlanta. This boy had a sloughing necrotic ulcer on the post pharynx, the size of a silver quarter, over the anterior process of the 3rd vertebra. He was put on 60 grs. of the iodide the first day which was gradually increased each day until his daily dose was 300 grs. In three months he had taken 5 oz. In five months he had taken 7 oz. His weight had increased from 104 to 130 (26 lbs.), the ulcer had healed and the skin symptoms had all cleared.

But the interesting features of this case are to come, and so far as I yet know they were then, and yet are, almost unique. With antiseptic sprays and cleansing cotton probes, curettes, etc., the necrosed anterior process and body of the 3rd vertebra were removed, leaving the spinal cord exposed (about 8x10 m.m. in extent). The anterior spinal cord looks not unlike a well manicured little finger nail.

At this time the patient displayed tetanic convulsions on the opposite side to the cleansing irritant. But later, firm pressure caused paralysis on the same side. This phenomenon grew so serious that I had a doctor present always thereafter.

In short, the cicatrix finally covered the cord and without too much pressure or irritation. The patient increased in weight and his voice was restored from aphonia to its normal sound. I injected melted paraffine into the bottom of this cavity to protect the cord after a healthy and aseptic condition had been brought about. The paraffine was gradually pushed out during the following days, but it prevented the cicatrix from unduly pressing upon the anterior column, and guarded the healing process from deglutition irritation or bolus contamination.

We find skeptics among the laity—many of them now—who, in their little knowledge, doubt the efficacy of medicines. What doctor does not daily meet a patient who exploits his knowledge (it is usually *her* knowledge) on the great harm that some certain drug has produced on her neighbor? He or she has heard the medicine called by

its common name!

A little knowledge on any subject "only makes mad." We may expect such cynosins from our patients, but the doctor who so derogates proper therapeutic efficacies is only to be pitied. In any case a meagre knowledge of any subject astigmatizes the embryo savant. He needs the mental cylinders of study and thought as much as the astigmatic eye needs its proper cylinder correction. As the point of view is all awry, it is the doctors' duty to try to correct both.

Placebos are good when not necessary, but iodide of potash in large doses is not a placebo. Probably when carried to iodism the subject is neutralized from any further ravages of the infection. And now, may we not go further still, and say that iodism produced in the healthy subject will render him immune to the initial infection of the syphilitic virus?

The Supposed Relationship of Damaged Grain to Epizootic Cerebro Spinal Meningitis of Horses.†

By M. Ray Powers, D.V. S., State Veterinarian of South Carolina, Clemson College, S. C.

Mr. President and Gentlemen:

At the request of Dr. Babcock, I will endeavor to give a brief history and description of this fatal disease of horses which is of common occurrence in this State during wet seasons.

HISTORY.

Dr. Large of New York, first reported this disease in America in 1850. In 1852 and 1865 it appeared in Denmark and Germany and a very serious outbreak was reported in Egypt in 1876 where about 6,000 horses, mules and asses perished in the vicinity of Cairo alone.

Since its first appearance in this country, numerous outbreaks have been reported at frequent intervals. An outbreak occurred in Virginia and North Carolina in 1886, and assumed such proportions that the citizens of these States appealed to the U.S. Department of Agriculture for aid. In response to this appeal, Dr. W. H. Harbaugh of the Bureau of Animal Industry was detailed to make an investigation, and his report was published in the 3rd Annual Report of that Bureau. Another serious outbreak occurred in Kansas in 1901, and was investigated by Dr. Mayo, of the Kansas Agricultural Experiment Station. The result of his investigation was published in Bulletin No. 24 of the station.

Frequent outbreaks of this disease have

†Read before the recent meeting of the Pellagra Conference at Columbia, S. C.

since been reported in New Jersey, Maryland, Virginia, North Carolina, South Carolina, Georgia, Louisiana and other Southern States. In fact this disease occurs almost every year in different portions of the United States and its appearance is now expected after rainy seasons similar to those of 1901 and 1906, when molds and fungi thrive on fodder and grain.

The records of this office show that in 1901 this disease appeared in at least nine counties of this State and caused a loss which was estimated at exceeding \$10,000. Following the wet summer of 1906 the disease again appeared, and judging from the cases already reported, we may expect another serious outbreak this winter.

Severe losses occurred in other Southern States during these same years, and Dr. Hickman of the Bureau of Animal Industry spent considerable time investigating an outbreak in North Carolina. His report is now available as Circular 122 of that Bureau.

OCCURRENCE.

This disease does not seem to be confined to any particular locality, as it has appeared in the upper portions of the State as well as in the low country. We must admit, however, that outbreaks are more frequent in the low, flat country than in the hilly portions of the State.

Horses are more frequently attacked than mules, in fact, I have never had opportunity to see a mule so affected although the loss of a few mules has been reported to this office.

Cases occasionally appear sporadically although more frequently the disease extends over a large area, hence the name "Epizootic Cerebro-Spinal Meningitis." It is rare, however, for this disease to attack all the horses on one plantation.

CAUSE.

While many theories have been advanced as to the causative agent, we are compelled to admit that the specific cause is unknown. The cause has been attributed to almost everything from unsanitary condition of the stables to sudden changes in the weather, but while we must admit that these may be predisposing causes, we know that they are not of primary importance as causative factors.

No pathogenic microbe or virus has ever been isolated as the causative agent. Furthermore, we have often noticed that the disease is not communicable from animal to animal as it frequently happens that one horse in a team will be affected while the mate, which has been kept under identically the same conditions (eating from the same manger, occupying the same stall,

etc.), remains perfectly healthy. This and other observations lead us to believe that the symptoms are produced by the introduction of some narcotic poison rather than by the growth of micro organisms within the system.

If these symptoms are produced by micro organisms our laboratory methods must be at fault or the organism must be ultra-microscopic. Furthermore, the inoculation into susceptible animals of defibrinated and citrated blood as well as brain emulsion from affected animals fails to produce these symptoms.

Poisonous plants have also been suggested as the possible cause. This cannot be accepted, however, as a large number of animals which escape are kept under identically the same conditions as the animals which are affected.

As practically every outbreak occurs among animals receiving damaged corn or fodder, the majority of investigators believe the causative agent to be moulds or fungi which grows on the damaged food. From investigations and from reports received it would be difficult to connect this disease with any particular food, although in the majority of cases, the animals received damaged corn.

This theory is further strengthened by the observation that when owners of affected animals change the food and water completely no further cases develop, while, in instances where owners refuse to do this, new cases appear. Dr. Mayo's investigations would lead us to believe that the symptoms are produced by a fungus (*Aspergillus glaucus*) the spores of which enter the circulation and cause inflammatory conditions and abscess of the brain. He claims to have recovered this fungus from the lesions.

While damaged food is probably the most rational cause of the disease, we must not overlook the fact that several investigators have carried on feeding experiments with negative results. Dr. Law explains this and the fact that all animals receiving damaged food are not affected, by stating "that the cryptograms probably vary under different conditions of life and elaborate various products at different stages of their growth, thus accounting for the presence of the disease at one time and its absence at another under what may seem identical conditions."

SYMPTOMS AND COURSE.

The symptoms usually exhibited are: dullness, and extreme muscular weakness (shown by hanging of the head and general depression). There is often a paralysis of the throat, making swallowing difficult or impossible and saliva drops from the

mouth. Paralysis is occasionally present and the animals stagger and fall or else stand with the legs braced or with body resting against the side of the stable. Twitching of the muscles is often observed and in some instances, a rigid contraction of certain groups of muscles is noticed. Animals often become delirious and stand with the head pressed against the wall or walk persistently in a circle. The temperature ranges from normal to 105 or 106 degrees F., although in some instances it remains normal or even sub-normal. Respiration is accelerated and the pulse variable, being soft and weak in some cases and hard and wiry in others. The visible mucosæ are usually very much congested.

Severe cases die within 6 to 48 hours, the animals usually falling after a short time and remaining in a comatose condition until death. In mild cases, the animals may recover, but are seldom of much value as they develop into what are commonly termed "Dummies." The Mortality in South Carolina is at least 95%.

POST-MORTEM APPEARANCE.

Congestion of the blood-vessels of the meninges and medulla appear to be constant and areas of necrotic or softened nervous tissue are often found. In one instance in particular, a softened amorphous area larger than a silver dollar was found in the left cerebral hemisphere. In connection with this, I might add that the horse was apparently in normal condition when placed in the stable at night but was delirious when found in the morning. This horse died within six hours and (as this lesion must have been well developed before the symptoms appeared) the hopelessness of medicinal treatment is at once apparent.

Five brains have been forwarded from this office to Washington, D. C., for examination and the following is an extract from a letter received from Acting Chief of the Bureau of Animal Industry:

Upon receipt of these tissues rabbits were inoculated intracerebrally with an oblongated emulsion, but they have thus far remained in an apparently healthy condition. Upon cutting through the hemispheres an irregularly softened amorphous area was found in the right cerebral lobe of each of the four brains examined, the result of the breaking down of the cephalic tissue. The predilection for the motor areas of the cortex on the right side was noteworthy. In brain No. 2, a complicating hæmorrhage was observed around the necrotic mass, giving rise to hæmorrhagic inflammation of the brain.

On microscopic examination these areas of degeneration were found to be destruc-

tive rather than exudative and show the alterations in every respect similar to those found in epizootic leuco encephalitis, usually termed cerebro-spinal meningitis. The blood vessels in the substance of the brain present an inflammatory condition of the walls, some being ruptured, others distended. The surrounding tissue shows a perivascularitis and contains many infiltrated leucocytes. The softened centers appear as hyaline or gelatinous degenerated areas of a homogenous nature which is frequently seen to be contracted leaving vacuoles containing a faint fibrinous material. The neuroglia fibrilla show a gradual disintegration which is also apparent in the neuroglia cells, the protoplasm of which fails to take any distinctive stain. These are finally broken down into the debris of the constituent parts.

The location of the above described softened areas probably controls the various symptoms produced and would account for the different action of the animals observed."

TREATMENT.

Medicinal treatment is unsatisfactory and practically useless as the central nervous system has usually undergone such degenerative changes before the symptoms develop. When the animal is noticed before the ability to swallow is lost, a purgative is administered. When the animal is unable to swallow, hypodermic injections of eserin or arecoline hydrobromate or intravenous injection of barium chloride is given to accomplish the same purpose. Iodide of Potassium is also given when possible.

As the disease is so fatal every effort is made to check its spread. The animals are given complete change of food and water and moved to another stable if possible. The abandoned stable is then thoroughly disinfected and allowed to remain vacant for two or three months. Where these measures are adopted, additional cases seldom develop.

Some Object Lessons in Otology for the General Practitioner.*

By J. A. Stucky, M. D., and S. B. Marks, M. D.,
Lexington, Ky.

As abdominal surgery has just passed through its most important era in regard to its standardization and recognition as a specialty, and at the same time so close is its relation to general medicine that the general practitioner has attained that degree of surgical knowledge which so enables him to diagnose obscure and dangerous lesions of the abdominal viscera, that

*Read before the recent meeting of the Mississippi Valley Medical Association.

he now joins with the abdominal surgeon in his plea for early and in appendicitis for interval operation; so is otology approaching its deserved place in medicine. It is only until recently, owing in large part to the plea made by otologists throughout the world, that otology has been placed on its proper plane in our medical schools and the graduate given a course of sufficient thoroughness to enable him to enter his field of usefulness with a working knowledge of otology and an ability to diagnose, discover the cause, of and treat the milder ear conditions and this is only as it should be since 'tis he who sees the cases in the initial stages and in his hands lie to a very great extent the present and future health and hearing of his patients: as a result of this knowledge there will be far fewer cases of deafness and intra-cranial complications.

The danger of neglected and even not neglected ear conditions can not be too too highly emphasized. Adam Politzer in his annual lecture to his class in otology, would pick up the temporal bone and thus describe it: "The temporal bone has four sides, the outside is bounded by life from which there comes through the opening of the external auditory canal one form of what life means; the other three sides are bounded by death." We fully realize the truth of these words when we find statistics placing the ear second only to trauma in its causative relation to septic inflammation of the brain and the meninges. Therefore the chief problem and obligation that confronts the otologist of to-day is to revise these statistics.

Side by side in their etiological relation to middle ear and mastoid disease are the acute exanthamata and certain nasopharyngeal conditions, the adenoid taking first place. The general practitioner can not be too watchful of the ears not only in the exanthamata, but in every febrile condition of children, nor too emphatic in his insistence that all lymphatic tissue be removed from the throat and nose. The late Edward Clarke, of Boston, many years ago gave this advice. "The physician who fails to examine the ears of children in the acute exanthamata may be justly denominated an unscrupulous practitioner."

The otologist worshipping at the shrine of the general practitioner has long since been taught the value of constitutional treatment in every condition with which he deals and now the general practitioner must come to the otologist and realize the necessity of prompt relief of the causative factors of middle ear and mastoid disease.

On the family physician falls the treatment of the majority of cases of catarrha

otitis media which are frequently relieved by the instillation of glycerine and alcohol; a free catharsis and a mild anodyne when necessary; the time honored laudanum and sweet oil is mentioned here only to be condemned, it is dirty, invites infection and is of little efficacy. This simple treatment often fails to produce the desired result and when the pain persists for a few hours, even to a moderate degree, the drum membrane should be incised, a thorough myringotomy being done and not a paracentesis, the canal is sterilized with bichloride of mercury and alcohol or some other good agent and the membrane incised throughout at least one third of its circumference, beginning above at Schrapnell's membrane and bringing the incision well down on the floor of the canal; those fearing to injure the ossicles by this incision may incise the anterior portion in the same manner. On examination of these cases the membrane is usually found congested and may be bulging, showing evidence of fluid in the middle ear, or there may be no appreciable change; don't wait for congestion of fluid to appear, but rather forestall the inflammation and establish drainage by a myringotomy. After doing a myringotomy wipe out the fluid if there is any, with sterile cotton, insert a small strip of sterile gauze in the wound (not to extend beyond the meatus) and to remain in twenty-four hours or less and care for the discharge with sterile cotton placed loosely in the meatus to be frequently changed (with clean hands or instrument) as the amount of discharge requires. If pus be found on incising the drum membrane or later appears, the canal should be flushed daily with warm saline to which has been added a mild antiseptic as-alphozone 1 to 3,000, boric acid or a very weak solution of bichloride of mercury, the canal must then be thoroughly dried with sterile cotton and treated with the strip of gauze and cotton as in the simple cases. In children it is always better to give an anesthetic; a local anesthetic may be used in adults but it is often better to use general anesthesia especially where the pain is severe and the membrane hyperesthetic. The pain in acute otitis media varies very much, in some cases, notably grip; whether the infection be of the influenza bacillus or the streptococcus, the pain is very severe and may persist for some time after drainage has been established, while in others the pain is very insignificant and the discharge after rupture of the drum membrane is the first symptom. Every case of otitis media whether acute or chronic, whether simple or suppurative, has its cause which should be investigated and treated; 70% of acute otitis media is due to a naso-pharyngeal

condition chief among which is the adenoid; every day one is more impressed by the very small amount of adenoid tissue it takes to cause a chronic suppurative otitis media with subsequent deafness.

One should always be on the alert for mastoid complications in every case of otitis media and should examine the discharge with the microscope to determine the type of infection with which he is dealing; the virulence of the streptococcus, influenza bacillus and pneumococcus being far more severe than that of the staphylococcus, meningococcus and others. When mastoid tenderness is present the necessity of an operation must be in mind from the first particularly if the infecting organism be of the virulent group; it is not an uncommon occurrence to find the whole mastoid bone in a state of necrosis in less than twenty-four hours after an influenza or streptococcus infection with serious damage done to the middle ear as well. The symptoms of an acute mastoid are very misleading and frequently bear little relation to the amount of destruction which has taken place, especially should one be apprehensive on the disappearance of pain and restlessness, just as one is appendicitis; this absence of pain and the appearance of an apathy or indifference is strongly suggestive of a release of pressure the pus having found its way in the surface through the cortex, the tip or canal, or has gone into the middle or posterior fossa of the skull; a late apathy is significant of intra-cranial pressure or sepsis.

Lawson Tait has said: "Always open mastoid immediately on the appearance of tenderness over the mastoid in streptococcus influenza infections." Dench, took this stand in 1901, after having a boy with a cessation of symptoms and two months later finding the mastoid in an advanced stage of necrosis with a large subperiosteal abscess, this being the first symptom noticed by the boy or his mother since the original tenderness cleared up. The early symptoms of an influenza or streptococcus or a mixed infection of these two are very severe, coming on very suddenly with marked prostration and terrific pain and frequently associated with considerable intestinal derangement and other complications.

Dr. Stucky had several such cases last winter, and the following is a brief report of two: 1. Female 35 years, seized with terrific pain in right ear on Sunday night at 11 o'clock which increased until Monday at noon when a myringotomy was done, considerable pus was found in the middle ear which showed the influenza bacillus and streptococcus in a mixed in-

fection. Tuesday a myringotomy was done on the left ear, at eight a. m., and a similar condition found; there was little relief incident to this and on Wednesday marked tenderness was present over both mastoids with increasing pain, so a double classical was done on Thursday and showed both mastoids in the worst possible state of necrosis, almost gangrenous and both middle ears so filled with granulations that it was with some considerable apprehension that they were left undisturbed. Convalescence was very slow because of a severe intestinal disturbance and diaphragmatic pleurisy; the temperature in this case was not above 101 at any time before the operation. 2. Male, 7 years old, with a similar history, infection and destruction of bone was operated on a short while later in which the sinus on each side was exposed at the tip by necrosis of the single tip cell forming part of sinus wall. These two cases show the severity and treacherousness of these cases and the necessity of early operation.

There can be no greater mistake than waiting for the so-called classical symptoms in mastoid disease before operating, no more should this be done than to wait for signs of abscess formation in appendicitis. Because of the very poor drainage of the antrum and mastoid cells and their dangerous proximity to the cranial cavity it is far safer to operate on every case with tenderness lasting over 48 hours with little or no improvement under the use of a free myringotomy, dry heat, free catharsis and therapeutic doses of the salicylates and bromides; avoid the use of opiates as they are treacherous, an initial dose may be used but no more with safety. Dry heat is best applied by the use of absorbent cotton put on with a bandage and the hot water bottle; avoid cold and moist heat as the former chills the parts and makes the symptoms, while the latter lowers the vitality of the soft parts and renders the auricle hyperæsthetic and sensitive, inviting a perichondritis.

Look for a moment at the construction of the temporal bone with its thin tegmen tympani and antri with the small fissures in the petro-squamous suture for the exit of several small veins from the cranium along the peri-vascular spaces of which infection travels, the antrum with its small additus for drainage which is stopped by a single drop of thick pus or swollen mucous membrane, the mastoid cells a veritable honey comb with small indirect or no communication with the outside world, and at the same time investing the lateral sinus on one side and we cease to wonder at the danger and rapidity of an infection in this region. Fortunately pus in escaping from the mastoid

finds its way externally more easily than internally, except in the diploic cases.

There occurred in Dr. Stucky's practice last winter two cases a brief report of which will be of interest here: 1. Male, age 12 years, history as written by physician; repeated attacks of purulent otitis media since early childhood; first seen on Oct. 30, pale, anemic, poorly nourished and considerable pus from right ear which readily responded to treatment; seen again Nov. 23, nausea and vomiting for three or four days, temperature normal and much pain which was relieved by a copious discharge of pus from the external auditory canal, in all probability forced through the closed additus by its own pressure; December 1, severe pain, tender mastoid and temperature 101, the following day the pain was again relieved by the discharge of about an ounce of pus through the external auditory meatus, but the tenderness persisted and on December 7, though little pain in ear the mastoid region became soft, swollen and red; December 9, diplopia developed and on the following day Wilde's incision was made with the escape of an ounce or more foulsmellidg pus, and the establishment of through and through drainage; at X-mas time the boy felt fine and could shoot a rifle with fair accuracy, but became worse on December 30, and came to Lexington on January 8, showing considerable evidences of pressure, intense pain in head and neck choked discs, apathetic and nauseated on attempting to take some broth, there was also marked irritation of the facial nerve on the right side some little paralysis. At operation this same day the following condition was found: a large abscess extending from the mastoid region into the neck, a large perforation of the cortex of the bone which was in an advanced state of necrosis, large pieces coming away at a time, one piece extending from sinus to canal wall and exposing the sinus for an inch or more; posterior to the lower part of the exposed sinus which at this site was covered with granulations, was found a soft exposed spot in cerebellum over which the dura was destroyed, considerable soft cerebellar tissue escaped on investigation suggesting an abscess. The operation was stopped at this point because of the condition of the patient. For four days following the operation the boy was very dizzy, unable to sit up in bed and had considerable nausea and vomiting; he also had a traumatic facial paralysis which later cleared up. A secondary operation was done three weeks later to care for the badly necrosed middle ear. Case 2. Male, 17 years. Since early childhood had recurring attacks of otitis media in both ears lasting only a few days at a time. For

several weeks before coming to Dr. Stucky, had been in bed with a remittent fever, pain in head and neck and left ear with a slight discharge from this ear. Two days ago this pain became very severe behind mastoid and a large swelling appeared in neck below ear. On examination, at time of arrival, he showed all the signs of a Bezold's mastoid with a temperature of 98, pulse 116, restless, irritable, septic, and urine loaded with indican; the fundi were not examined as patient was too restless. At an operation done in a few hours there was found a large abscess in the neck with a perforated tip, the mastoid necrosed well beyond the sinus and filled with pus under pressure, the exposed sinus was filled with a semi-organized clot throughout its sigmoid portion and the structures in the middle ear were practically destroyed so the radical operation had to be done. Convalescence was uneventful, for five days, when pain in right ear was complained of which was relieved by local measures and a mild anodyne; examination revealed an old perforation but no congestion. Twelve days later the pain reappeared and persisted to a mild degree for ten days with no change in the drum membrane; the following day the pain was worse and the membrane slightly congested so an anesthetic was given and a myringotomy and a small adenoid removed, this was followed by a complete relief for three days when he was seized with sudden pain, dizziness and tenderness of deep pressure over mastoid, temperature 97, pulse 122 and a leucocyte count of 17,000 with a polynuclear count of 80%; on operating that night the following was found: cortex dense, mastoid diploic, cells filled with granulations and pus, a large fissure in tegmen antri communicating with an abscess in the middle fossa containing yellow pus at which site the dura was thickened and inflamed, the middle ear was filled with a polyp on the removal of which the carotid artery was ruptured and an alarming hemorrhage resulted but was controlled with gauze plugs left in for a week. Convalescence was uneventful. These two cases show: the danger of delay, the ways for the escape of pus. (through the external canal, the cortex and tip); three intracranial complications. thrombosis of the lateral sinus, an abscess in the middle and posterior fossæ, and their respective routes of infection: the danger of a remission of symptoms and the value of the differential leucocyte as shown in the second operation in the second case.

The middle ear polyp should not be overlooked, it so frequently conceals serious trouble, the case above and two others operated on by Dr. Stucky during the past

year all showed advanced middle destruction and mastoid involvement. Never attempt to remove a middle ear polyp in office as they usually spring from the tegmen tympani and thus endanger the dura and invite infection by tearing the tegmen in their removal; they may be attached anteriorly near the carotid, and severe hemorrhage result in their being removed by tearing away a part of the carotid canal and injuring the artery.

That the chronic suppurative ear is a serious menace to life is well shown by the attitude of life insurance companies in regard to risks on such cases; their stand is, if the discharge be muco-purulent the risk is great, if the discharge be purulent and foul smelling or if cholesteatoma be present don't accept, and if deafness or vertigo be present increase the premium.

McEwen has said: "Otorrhea is a menace to life, is insidious, and not certain as to where it will end. It advances often without pain until whole mastoid cells are rotted out and the meninges and the blood are invaded. As long as the middle ear and its recesses are the seat of pus secretion they are liable to become a focus for pathogenic organisms which may find their way into the meninges or the circulation."

The chronic mastoid is very frequently of the diploic variety with few and small cells, a dense ivory like cortex and in all probability a necrotic tegmen tympani, not infrequently tegmen antri and often an exposed dura inviting or a meningitis. When cholesteatoma is present the danger is much increased since this fibro-pathogenic membrane confines the infectious material, causing absorption and sepsis and at the same time hastening necrosis and intracranial complications.

Many cases of chronic suppurative otitis media can be cured by persistent local treatment provided the opening in the drum membrane be kept thoroughly open to allow medication and drainage of the middle ear cavity and there has been no necrosis. Some few cases with little necrosis in the attic can be cured by an ossiculectomy which establishes thorough drainage of the middle ear and allows currettage of the necrosed area; this procedure is often a dangerous delay, especially if the mastoid with its poor drainage be involved when the radical operation is always indicated. The after results of ossiculectomy are better than those of the radical operation only in the fact that the cases are selected and are almost invariably in an earlier stage of necrosis than those coming to the radical operation; so ossiculectomy has passed into disrepute and should be adopted only in those cases who refuse the radical operation. The acute

exacerbations of a chronic middle ear should be treated as an acute condition always with a myringotomy and a most careful watch for mastoid or other complications.

Not infrequently in these chronic middle ear and mastoids there is so much absorption of infectious products as to produce a low grade of sepsis, some temperature, anemia, lack of interest and dull pain of varying degrees which may at times be lancinating. The chronic mastoid is far more serious than the acute, unless the infection be of a fulminating character, because of its so lowering vitality and the unreliability of its symptoms; it is a veritable volcano with the constant absorption from confined pus and red softening and when the pus does find an outlet it frequently goes in rather than out as it usually does in the acute cases.

The fact that chronic mastoid disease often shows few symptoms and very little tenderness is no criterion that these cases can with safety be neglected since so many cases at operation show a necrosis whereby nature has virtually done a radical operation and at the same time endangered the brain and meninges thereby. Many chronic mastoids come to operation and little pus is found, neither is this a guide as to the severity of the condition, as so many of these cases show red softening and frequently at the tip alone, and where red softening is there is absorption, a masking of symptoms and danger. The leading otologists of to-day advise the radical operation in all cases of chronic middle ear and mastoid disease where there is necrosis or tenderness on deep pressure, which procedure makes them safe and avoids dangerous delay.

It has been my object in this paper to emphasize the following:

First and foremost a plea for more thorough instruction in otology and diseases of the nose and the throat in our medical colleges

That a careful and diligent examination be made of the ears of children in all febrile conditions, especially in the acute exanthemata and a profound respect be had for any ear trouble when found. Don't fail to have a microscopical examination made of the discharge from an ear and when in doubt a differential leucocyte made and be guided accordingly.

Never wait for the so-called classical symptoms of mastoid disease before advising operation, but advise early operation as it conserves the vitality of the patient, takes less anesthetic, less shock attends the operation and the middle ear is saved in many cases.

And last but not least, the importance of

the constitutional phase of every case, most especially in regard to the intestinal tract which is so notably sluggish even in the mildest infection.

The Minin Light.*

By Mark W. Peyser, M. D., Richmond, Va., Secretary Richmond Academy of Medicine and Surgery; Electrotherapist and Radiologist.
Retreat for the Sick; Examiner for the Denver National Home for Consumptives, etc.

The therapeutic success attendant upon the employment of the x-rays and Finzen light has led to extensive investigations of their physiologic action, and to the invention by many experimenters of various apparatuses in the hope that they would prove of as great, if not more, benefit, and at the same time, be less bulky and complicated, more easily handled and less expensive than the machines heretofore required.

Many modifications of the original Finzen light are in the hands of the profession, and some have partly achieved the end sought; though, for various reasons, they can not be employed by the general practitioner. A very simple apparatus, and yet, one indicated in the treatment of lupus, appealing, therefore, to the general practitioner, is the Minin or Russian Violet light, which consists of a series of blue-violet incandescent lamps—not the ordinary bulb, pigment-dipped, but blown from the true colored glass—furnished with reflectors, for as Freund says, concave mirrors serve to concentrate greater quantities of light than can be done with lenses.

In employing these rays, the light is placed at such a distance from the part to be exposed that the heat is barely felt and the least increase in distance would cause the disappearance of the sensation entirely. This precaution is taken because, as noted by Finzen, light of lower frequencies when concentrated, causes combustion of the tissues; and, too, it meets the objection offered by some authorities, that the effect is due to heat and not to the actinic rays. This will be referred to later.

The size of the lamp used depends on that of the area to be treated and the nature of the affection. Exposures, given every day or every other day, are from ten to thirty minutes duration, according to the effect produced.

It has been shown that the Minin light possesses the following properties; (1) Anesthesia; (2) hastening absorption of effusions; (3) producing regeneration of the skin with formation of but little scar tissue;

(4) astringency. These are accompanied by a slight rise in temperature.

Minin demonstrated to his own satisfaction the anesthetic power in cases of gonorrheal arthritis, lacerations and other traumata. Allen, in his work on *Radiotherapy*, reporting three minor operations performed painlessly under the influence of the violet rays by Tracy, namely, removal of a sebaceous cyst from the scalp, a subcutaneous abscess from the thumb, an inch-square slough from the palm of the hand; and two by Brockbank, namely, suturing an incised wound of the forearm which had exposed the tendons, and removal of a fatty tumor from below the breast, suggests that as these lamps do not produce any ultra-violet rays and transmit a very small amount of violet and blue rays, the anesthesia was due to a strong mental effect.

On the other hand, Freund says that while the chemical or photographic efficacy of the incandescent lamp is slight, it may be materially increased by strengthening the current; and it is very evident that he is referring to the ordinary and not the blue-violet bulb, which produces a perceptible fluorescence in kerosene and solution of quinine. It is also evident that Freund is dealing with lamps of low voltage, and not that obtained through commercial sources. Apropos, I have noticed that comparatively new tantalum light causes a similar fluorescence, but in lower degree. If it could be furnished with blue-violet glass, it would provide a more efficacious therapeutic agent than does the ordinary lamp.

As to the absorption of the ultra-violet rays in the passage of light through glass, I again quote Freund, who says that "the favorable results obtained by Finzen with his old apparatus (glass lens and blue-light filters) are proof that it is not so very important that the irradiation should be with pure ultra-violet rays."

Recurring to the anesthesia, it is well to say that in some instances, instead of disappearing, the pain persists and may even increase after the first one or two treatments, but this is temporary.

The absorptive effect of the rays was prettily shown in a case of gonorrheal bubo. Under their influence, within a week after incision healing had occurred, the discharge having ceased and the gland reduced markedly. While I have been told that in this affection, recovery may ensue in from ten days to two weeks, I have et tosee a case of my own in which less than three weeks were needed for what is usually regarded as a cure. I recall one which continued so long that, in disgust, I asked a surgeon what I must next use to hasten recovery; his directions were short, for he replied "Patience."

* Read before the Thirty-ninth Annual Meeting of the Medical Society, held in Richmond, Va., October 20-23, 1908.

An illustration of the regenerating influence of the violet rays is seen in the following instance: Young man had his scalp cut to the bone by a piece of falling slate. After the wound was cleansed as thoroughly as possible, it was sutured. When the patient was seen again, five days later, the scalp was found to be bulging. As the sutures were removed, pus exuded through some of the stitch holes. The wound was opened for a distance of an inch, and a quantity of pus welled out. After thorough washing, which brought out more slate particles, it was found that the skull was denuded of its periosteum for about a square inch. Gauze was inserted for drainage and the wound dressed. This proceeding was continued for two weeks when, but little improvement being manifest in the restoration of the periosteum, the Minin light was used. After a twenty-minute sitting, the drain was inserted and for the first time, unaccompanied by pain. Only two treatments more were necessary to cause complete regeneration of the periosteum, and the scalp wound was allowed to heal over.

The fact that under the influence of the Minin light we have a vaso-constriction instead of the hyperemia produced by the regular electric incandescent lamp, is evidence of the influence of some other energy.

At the present time, there is under observation a patient with tibial ulcer of five weeks' standing. Wet dressings with strapping were of little avail. After the third exposure to the violet rays of the Minin light there is noticeable leveling of the edges and diminution in size. When the light is applied oozing ceases and the color is observed to change from a blue to rosy red and then to pink. Pain has diminished considerably.

The healing process in a case of lupus is thus described by Minin: "We can observe first of all, the absorption of the infiltration in the edges and in the depth of the ulcer, creating the impression that the ulcer is leveling itself and becoming smaller. In the course of repeated phototherapeutic treatments, the ulceration covers itself each time with a kind of very thin membrane and becomes smaller; its edges covered again with a skin of normal color and elasticity, approach each other more and more and at last, are separated only by a cicatrix which completes the restitution of the tissues."

"If there exists a cicatrix in the place of a very extended ulceration, it will be very superficial and minimized," not one that "ties down the edges of the normal skin like a large ribbon penetrating all the layers of the integument."

Treatment with the violet rays is indicat-

ed for pain of all kinds, except in some cases of neuralgia. As mentioned, they may temporarily increase the pain. They are also indicated in ulcers; solutions of continuity of the skin with infection, the rays having a bactericidal action, though not so marked as either the Finsen or x-rays, in effusions, and chronic skin diseases including syphilides and tuberculides.

They are contraindicated in hysteria; and, in the case of young anemic girls may induce that affection. Applications too frequent or too prolonged provoke general debility, which condition resulting from other diseases may be benefited by properly directed applications of the rays. Some patients develop great fatigue while under their influence.

Minin states that it is dangerous to subject to them aged patients with arthritis of the extremities, because of the possibility of cerebral hemorrhage; and adds that he can offer no satisfactory explanation of this. Finally, they are contraindicated in all acute cutaneous eruptions.

As to general chromotherapy, Akopenko, quoted by Freund, says that the violet light is depressing. The mental attitude becomes melancholy, dreamy; after some time, headache is felt. The psychical processes are checked, and become very slow, whilst the feeling of general depression becomes almost unbearable. This statement is endorsed by many other investigators, and Ponza, trying it practically, noticed that persons affected with melancholia, after a short time (three to twenty-four hours) in the red room, became cheerful and chatty and were ready to take food, whilst the blue room had a quieting effect on maniacs who had previously required the straight-jacket.

303 Twelfth st., north.

Opsono-Therapy. A Study with Illustrative Cases.*

By H. J. Farbach, A.B., M.D., Louisville, Kentucky, Assistant Professor of Bacteriology, and Voluntary Assistant in Genito-Urinary Diseases in the Louisville Hospital and Medical College.

Inoculation of dead bacteria in the treatment of infectious diseases is a measure that has been receiving a great deal of attention in the past few months. The reports that we have of the results obtained are more or less conflicting on the face of them, but on closer observation this confusion disappears, and it is plain that the great variations in conclusions reached are not due to the variation in the potency of the different vaccines used, but to the man-

*Read at the meeting of the Jefferson County Medical Society Monday Sept. 28, 1908.

ner in which they were administered.

Several of the large pharmaceutical houses have gone to a great deal of expense and trouble to test out Stock vaccines, and although their motives are for the best, I sincerely believe that the liberal distribution has given rise to so many conflicting and unsatisfactory reports.

I believe that every new therapeutic measure should be tested by men of unbiased minds, but there must be a certain amount of enthusiasm put into the work by these men, for the work to ever accomplish anything. Cases must be selected and results microscopically and macroscopically studied.

In this new avenue of therapy, even our basis of calculation, immunity, is still a theory. From a pure scientific standpoint, we are still feeling around in the dark. We are able to distinguish the walls when we touch them, but we have not been able to find the door, that when opened will flood this therapeutic agent with the white light of understanding.

It has never been claimed for vaccines that they were "cure-alls," or even that they were sufficient within themselves in the most favorable of cases, but that they are a valuable aid in a certain class of cases, when administered properly there remains no doubt. Next in importance to the selection of a proper vaccine is the administration, and it is on this that results depend.

There are men who would never take a sample of a preparation that had been left on their desk, read the directions on the label and prescribe it. They want to know every ingredient, the purity and amount of each. Still these same men have taken a vaccine, administered it according to accompanying directions, have made no microscopical investigation before or after dosage, and in some instances, have not even taken advantage of the clinical symptoms produced, as a gauge to future treatment. And the diversity of results reported, are due, I think, to this sort of an investigation.

In dealing with disease by vaccine therapy, it must be remembered that we are dealing with nature's protectors, namely, the leucocytes and the blood fluids.

The former, we know, aid in the resistance of the body toward bacterial invasion by their ability to ingest, and after ingestion, to digest the micro organisms. We are indebted to Metchnikoff for the most of our knowledge of this phagocytic action. Today we distinguish between a spontaneous and an induced phagocytosis. By spontaneous, we mean the ability of the polynuclears to ingest bacteria which have not been acted upon by the blood fluids. Here

the action of the white cells seem to be sluggish, and there seems to be a loss of the chemism between the cells and the bacteria. We find a few bacteria in any one cell, and in a number, none at all. In the induced where the bacteria have been, or are at the moment of experiment in contact with the blood serum, we see a strikingly different result. Here, every leucocyte is filled with the micro-organisms, and will continue to ingest them in the presence of the concentration of salt which inhibits the phagocytic action entirely in the spontaneous experiment. It is known that the increased phagocytosis is due to the action of the blood fluids on the bacteria, and not to a stimulation of the leucocytes. To prove this, white cells are collected and washed thoroughly to remove all traces of the blood serum, then if placed in an emulsion of bacteria, we see the spontaneous phenomenon. If a small amount of blood serum be added to the mixture of bacteria and white blood cells, we see the induced phagocytosis. Or if the bacteria be brought in contact with the serum, and allowed to remain so for a short time, and are then washed thoroughly to remove all traces of the serum, we find the induced action taking place when they are mixed with the leucocytes in a normal salt solution. So we find that although the leucocytes are a great factor in the organism's resistance, still they play only a secondary role.

In the induced phagocytosis, it is plain that some element of the blood enters into a combination with the bacterial elements. Our knowledge of how this combination takes place, and of the changes produced, is by no means complete. But we are able to recognize several various manifestations of this bacteriotropic action. In one instance we find that bacteria are killed, but not dissolved; a bacteriocidal action. In another they are killed and dissolved; a bacterolytic effect. In still another instance we see bacteria so changed that they will agglutinate in the presence of salt. And again, they may be changed in such a manner that they are readily ingested by the white blood cells. To this last effect, Wright has given the name of Opsonic. The ability of the blood serum to prepare bacteria for phagocytosis is the most important of all the bacteriotropic actions. It is present in all normal and immune blood, toward all bacteria. While we find the agglutinating effect in connection with very few, and the only bacteriocidal and bacterolytic effects that have been observed among micro-organisms, pathogenic toward the human, have been in the instances of typhoid and cholera.

Wright has likened this opsonic effect to

a pressure within the blood fluids themselves. When this pressure is high, the bacteria are readily taken up by the white cells. When it is low, we see a result that is a great deal like the result noted in the spontaneous phagocytic experiment. It has been demonstrated that this pressure may be low toward one bacteria and high toward another in the same blood at the same time, and associated with the findings of a low pressure toward any bacteria we have the clinical manifestations of the constitutional disturbances caused by such an infection. The more chronic the condition generally, the lower the pressure. It has been found that by inoculating the infected organism with the dead bodies of the same micro-organism toward which the pressure is lowered, that the pressure is raised and associated with the increased pressure, we have an improvement in the general and local conditions. And this fact, that micro-organisms killed at a temperature that destroys their life, but not the substances which their bodies contain when introduced into the economy, will raise this bacteriotropic, is the basis of Opsono-Therapy.

Vaccines were used before these facts were known, and it was while trying to find a control for dosage that Wright discovered this opsonic power of the blood fluid. Up to this time it was thought that the leucocytes were the great propagators of immunity, and that vaccines simply stimulated them to an increased activity.

The only control for dosage they had was the test inoculation, and this was notoriously unsatisfactory. It is true that if a vaccinated animal survived the inoculation of living bacteria, and the control died, it proved the virtue of the vaccine, but, if the test inoculation was excessive, the vaccinated animal succumbed as rapidly as the control. Or if the test inoculation followed the vaccination too soon, the vaccinated animal showed even less resistance and succumbed more rapidly than the control. This completely deceived these investigators as to the true value of the vaccine used, and today we know that the mere fact that the recently vaccinated animal showed less resistance than the control proved that the vaccine used was potent.

Following Wright's discovery, he published the details of a laboratory procedure for which he claimed he could not only estimate the body's resistance toward a certain bacteria, but could measure the immunizing effect produced by specific treatment. This technic has been sufficiently discussed in our Societies and Journals to be well understood.

But for the basis of future argument I wish to reiterate that the opsonic power is

low toward a certain bacteria when the organism is suffering from an invasion of that bacteria, especially in chronic conditions. That the pressure is lowered even more, shortly after the inoculation. That the greater the dosage, the greater the lowering of the pressure. That after a length of time, which varies, the pressure increases, returns first to where we found it before the inoculation, then exceeds this and may even exceed the control. This high mark is maintained for a short time and then the pressure begins to fall and will return to its original low mark if another inoculation is not made. But by proper dosage this high pressure can be maintained.

This curve outlining the variation in the bacteriotropic pressure has been likened to a tidal wave. The decreasing stage has been called the "ebb" or negative phase. The increasing stage, the "flow" or positive phase. The secondary decrease, the "back-flow," and the continued high pressure, the "sustained high tide of immunity." I have found the "ebb" to last from 6 to 48 hours, and the "flow" from 3 to 12 days. As mentioned heretofore, the larger the dosage, the more prolonged and more pronounced the negative phase, and in excessive dosage, the advent of the positive phase may be waited for in vain. This effect of excessive dosage has been observed very rarely, and then, in the early stages of the treatment. It being the rule, generally, that after a series of inoculations, a large surplus of vaccine will be tolerated.

It would naturally occur to every man, and especially to the beginner, that by piling one inoculation on another, he could increase the output of bacteriotropic substances, and thereby prolong the positive phase. It must be remembered, however, that our ability to increase this power of the blood is very limited, especially when compared to the increase of protective substances brought about in the preparation of anti-toxin. Here, we have been able to increase the anti-bactericidal substances, thousands, and even millions of times. While in a very few instances the opsonic power has been increased 20 times.

We know that the excessive dosage produces a prolonged and pronounced negative phase. It has been shown that too frequent inoculations produce a continued negative phase. Wright conceived the idea that by giving small doses, doses less than those which would give the greatest response, and by shortening the interval between inoculations, that he could obtain a cumulation of the positive phase. His results, however, seem to indicate that this can be accomplished very rarely.

Another deduction that would be made

by most men, would be to progressively increase the dose; but this, too, has been proven falacious, and if persisted in, can only lead to disaster. It is true that in some cases, after a time, we get no negative phase and a very short and unsatisfactory positive phase with the original dose, and in these, of course, the dosage must be increased.

The proper dosage is the one that will produce the least negative phase, followed by the strongest positive phase, and the indication for re-inoculation is the lowering of the bacteriostatic pressure generally manifested by some clinical symptom.

For the successful treatment of infections by opsono-therapy something more than the mere knowledge of the physiology of the immunity thus produced is necessary. But before taking up this side of the study, let us consider the other therapeutic measures which are used in the treatment of infections.

For convenience, I have classified them as follows:

Expectant plan of treatment.

By antiseptics.

By Surgery.

By increasing the circulation to the part.

By Serum.

Under the expectant plan, we are taught to feed, nurse and rest, and are shown 80 to 90% of recoveries from typhoid fever by this method. But the results obtained in septicemia, and other generalized infections, tell a very different tale. No claims are made for it in local infections. We know that in active general infection nature does her utmost to produce immunity, but in localized conditions she shows only a passive resistance, and as most of the serious ills of life are due to localized infections, this plan does not offer the physician much.

The use of antiseptics today are confined chiefly to localized infections. In the past their use has been advocated to check microbic growth in the blood and putrefaction in discharges and necrotic tissue by internal administration. These measures have been abandoned because it has been shown that all present known chemicals have a greater affinity for the body substances than they have for the bacteria. And today the use of chemical antiseptics locally is not near so widespread as heretofore, because experience has shown that the chemical used effects only the micro-organisms that it comes in contact with; that it cannot come in contact with the deeper buried bacteria; that it paralyzes the leucocytes and destroys the anti-bacterial power of the blood locally; that it also injures the capillaries of the tissue and causes an outpouring of lymph,

that not only washes away the antiseptic, but forms a perfect culture media for the bacteria present.

In deep-seated infections that cannot be reached by antiseptics, surgery had been advocated, and in cases where the operation removes a useless organ, or one completely disorganized, or removes the focus of infection without danger or noticeable mutilation, it is undoubtedly the best procedure, but in the majority of cases of surgical interference this is not accomplished.

Various measures are used to obtain an increased circulation in the infected area. Radiotherapy, hot application, the emptying and draining of abscessed cavities, the method of Bier and Klapp, etc. The success of these procedures is due to the fact that with more blood to the part you have more leucocytes and more anti-bacterial substances in the camp of the enemy.

In serum treatment, the aim has been to combat a generalized rather than a local infection. Except in the instance of diphtheria, this therapeutic measure has not fulfilled expectations.

In retrospection then, these methods offer the physician very little in generalized infection, and less in localized condition. In opsono-therapy, we have an agent which offers a great deal in both conditions, and although still too new, and data too meagre from which to make absolute claims, men who have been watching the development of this agent know that today it has more points to its credit than any other method proposed to combat infection. As stated before, vaccines are not sufficient within themselves in all cases, and opsono-therapy will never be a measure that can be used imperically. The doctor must have a full knowledge of the physiology, bacteriology, and the histological changes that have taken place as the result of infection.

We know that the seat of an infection must be a "foci of lowered bacteriostatic pressure." The lowering of this pressure is due to the absorption of the anti-bacterial substances of that location by the bacteria, and an inability of the system to combat this by interference with the circulation of lymph. I believe that at the beginning of every infection, the local resistance is lowered, while the general pressure is still high, but as the infection advances the resistance of the entire organism is lowered toward the invading bacteria.

In investigating the changes that take place and the conditions that are present in the different forms of local infections, Wright has made the following divisions:

Bacteria growing on or in contact with serous infusions.

Abscess formation.

Sinuses.

Brawny swelling of the subcutaneous tissue.

Wright and Douglas demonstrated that in cases of tubercular peritonitis the ascitic fluid had in every instance a greatly lowered opsonic index, even when the blood serum of the patient himself was used as a control. Showing that the local resistance was low, while the general pressure was high. And the fact that the simple withdrawal of this low pressure fluid and allowing nature to replace it by a fluid of higher bacteriotropic pressure accounts for the success of this plan of treatment in these cases, and it shows how erroneous the treatment that did not take this feature in consideration would be.

In an abscess there are two features to be kept in mind. One the lowering of the pressure locally by the absorption of the anti-bacterial substances within the wall nature has thrown around the infection, the other the liberation of a tryptic ferment, by the broken down leucocytes, to which Opie was the first to call attention. It has been shown that by collecting leucocytes and washing them thoroughly to remove all traces of the serum, then incorporating them in liquified gelatin and keeping this mixture at a temperature of 50 degrees C. for 24 hours, that the clot undergoes auto-digestion, and the surrounding gelatin has lost its ability to solidify at a lower temperature. It is thought that this digestive action explains the paralysis of the leucocytes in an abscess, accounts for the burrowing of pus and, when carried to a greater degree, accounts for the sterilization of the contents of old abscess cavities.

In sinuses we have the dry and freely discharging varieties. In the latter there exists a condition similar to that found in an abscess, namely, a fluid low in bacteriotropic pressure and exerting a digestive power upon the surrounding tissue. In the dry variety we have a more complicated condition. Here the out-pouring of lymph has been stopped by the formation of granulation tissue, and the layer fibrin which lines the sinus. The infection here is not virulent enough to penetrate this wall, and the barrier in turn protects the micro-organisms from the phagocytes, and the anti-bacterial substances of the blood.

In Brawny swelling, there is an infection located in the subcutaneous tissue, and the blood and lymph supply have been cut off by the stopping up of the capillaries.

It is plain then, that when nature cannot successfully combat a local infection that

there is present one or more of the following: A fluid of low bacteriotropic pressure, a fluid tryptic in action that paralysis phagocytosis and digests surrounding tissue, or a blocking of the lymph and blood channels. As often heretofore mentioned, the general pressure may be high while the local is low, and our efforts here are not to increase the systemic pressure, but to aid nature in bringing the high pressure fluid into locality of lowered resistance, and to do this we must remove fluids of low pressure and provide for a conveyance for the bacteriotropic substances into the site of the infection. To do this we must release and prevent the formation of the tryptic ferment, and in any instance remove the obstacles to a free streaming of a high pressure lymph.

Then if we find that this infection is such that the anti-bacterial substance is absorbed to the extent that the systemic pressure is lowered, systemic treatment is indicated.

How can we tell when this general pressure is low? First our attention is attracted by the clinical symptoms, then the transudate or exudate is examined and the offending bacteria identified. Wright advocates that the opsonic index should be taken in every instance. The use of this procedure as a diagnostic agent and control for dosage has not been universally accepted. Wright claims that the variation is very slight in the hands of a good worker, but other workers have not found this to be true, and have come to rely more on clinical symptoms and the reaction following inoculation than on the laboratory procedure. In the cases I report tonight, I have not used the opsonic index in a single instance, either as a diagnostic agent or as a control for dosage. Although unprepared to make a statement at present, I hope in the future to prove that a careful examination frequently made of the transudate or exudate will give evidence that can be relied upon as a control for dosage. The use of vaccines as diagnostic agent is rapidly gaining ground. The ophthalmo-tuberculin test first suggested by Wolff and Eisner, and later extensively reported upon by Calmette, is probably the most popular one at present, but it has also been used extensively in obscure cases of gonorrheal, typhoid, streptococcic, and other infections.

With the diagnosis made and the proper vaccine at hand, the administration is the essential thing. As I have stated, use of opsono-therapy can never be governed by cut and dried rules. When we take into consideration the fact that menstruation, lactation, fever, indigestion, and even mental attitude influence this bacteriotropic pressure, we can readily appreciate that every case is a law unto itself. The pro-

cedure I follow in nearly every instance is as follows:

I make a smear of the discharge if any is present and inoculate tubes of culture media direct from the site of discharge. If the case is one that demands immediate treatment, I use a Stock vaccine indicated by microscopical examination of the smear. If the case be one in which a few hours delay would not effect prognosis, I await the development of the cultures before beginning treatment. I begin the treatment with the Stock vaccines in nearly every instance governing the size of the dose by the age, weight, period of infection, and general condition of health. The Stock vaccines used by me in this study were kindly furnished by the Department of Experimental Medicine, of Parke, Davis & Co. If the reaction following is not satisfactory, then I use an autogenous vaccine.

The point of inoculation seems to have very little effect on results obtained. I generally try to place it so that it enters first the lymph channels that supply the infected area. The injection should be subcutaneous, not deep and still not so superficial as to leave a visible elevation. The reaction following inoculation is the clinical manifestation of the negative phase. This reaction is more or less similar in all instances. The patient first expresses a feeling of malaise and languor. The site of the inoculation has a sense of heat and discomfort. If there was a discharge present, it has increased, and there may be some increased pain at the site of the lesion. On examination the slight rise of temperature is found, the site of the inoculation is red and it feels warmer than the surrounding tissue. At the site of the lesion there are evidences of increased inflammation. The length of time between inoculation and the appearance of these symptoms, the severity of the symptoms and the duration, should all be taken in consideration in the estimation of future dosage.

As the bacteriotropic pressure rises, these symptoms disappear and we have present the clinical manifestations of the "flow" or positive phase. The reason I have not used the opsonic index in the following cases is not because of the work entailed, but because the results I obtained were not satisfactory, and in cases where the index is not taken the clinical manifestations and discharges must be watched very carefully, and the very first indication that the positive phase is waneing is an indication for more vaccine.

That is why at the beginning of this paper I placed administration next to selection of the proper vaccine. The best results cannot be obtained where the interval be-

tween doses is too short or too long, or where the size of the dose is too small or excessive.

The clinical evidence of insufficient dosage is no manifestation of a negative phase, and a very short and unsatisfactory positive phase. Evidence of excessive dosage is a pronounced and prolonged negative phase, followed by an unsatisfactory positive phase.

I wish to report on two streptococcic, one pyocaneous, twenty gonococcic, two staphylococcic, two colon and four mixed infections.

Streptococcic Infections.

In dealing with streptococcic infections, the multiplicity of strains should be kept in mind and much dependence should not be placed on stock vaccine. I have used vaccines in one acute and one chronic streptococcic infection. The acute case was a most severe one. A temperature of 104 to 105 deg. F., and a pulse so rapid it could not be counted, had been present for several days. Associated with this were all the symptoms of a true septicemia. Within five hours after the first inoculation the temperature was sub-normal, the pulse greatly improved and the patient made an uneventful recovery. The chronic case was a condition characterized by crops of large carbuncular-like lesions that were very painful and demanded surgical interference in every instance. After three inoculations all the lesions present had disappeared, the general condition greatly improved and the patient was sent to the country to recuperate, with the instructions to return at the first sign of re-appearance. I have not heard from the case directly, but indirectly have heard that some lesions had appeared some months after the treatment.

Gonococcic Infection.

I have made the division of acute and chronic gonorrheal infections and gonorrheal complications.

In the acute condition the general pressure toward the gonococcic is high, and it is a well known fact that if the doctor will help nature and not try to do too much in these acute conditions, they will prove to be a trivial thing, and in my estimation there is absolutely no indication for a vaccine in the acute condition.

In the chronic cases there is a different state of affairs. Here the system is showing only a passive resistance toward the infection, and as a general rule the systemic pressure is low.

The scope of this paper does not allow me to enter into a thorough discussion of these conditions, but it is in this field that the most brilliant and happy results have

been obtained by the use of vaccine. In 20 cases of from 1 to 12 years standing, I have obtained what is to all present appearances a cure. In the old chronic cases there is generally found a condition of mental depression and hopelessness. They have tried everything, have been given hopes and have seen them blasted so often that they feel that their condition is hopeless. The first and one of the most gratifying results to both the patient and the physicians obtained by the use of vaccine is the disappearance of this depression and the return of confidence and high spirits. Under the head of gonorrheal complications, we have epididymitis, epididymo-orchitis, prostatitis, rheumatism and endocarditis.

I have never seen a case of the latter, but in the other conditions opsonotherapy has obtained some wonderful results. The pain in these conditions which in the past could be controlled only by large doses of opiates is relieved very promptly by vaccine, and while the treatment in the past has been almost entirely expectant, this new agent allows us to carry on an active fight right in the camp of the enemy.

Staphylococci Infection.

In the two cases staphylococcal infection I have seen, one was an acne, the other a condition characterized by crops of large furuncles. Cultures showed the citreus and albus in the acne and the albus and aureus in the other. Both improved rapidly and there was no return of symptoms.

The conditions I have seen due to the colon bacillus were bladder infections, following catheterization, and the distressing symptoms that were present rapidly disappeared and they made uneventful recoveries in a short time.

I have seen but one lesion in which the Bacillus Byocyaneus was a primary cause. I was called into the case in question by Dr. J. Hunter Peak. The condition when he first saw it two months before was one of general peritonitis due to the rupture of an appendicular abscess. On opening the abdomen he found it filled with a typical green pus. The patient withstood the operation very well considering his physical condition, and everything progressed nicely, but the wound would not heal. Cultures showed the cause to be the pyocyaneus, and after a few inoculations of an autogenous vaccine, the wound healed nicely.

Mixed Infections.

Any lesions that are exposed to the air or outside influences will sooner or later be aggravated by secondary infections. While in some cases it seems that two or more bacteria are present from the very beginning, in others there is no doubt but that a single

variety was the primary cause, and the other bacteria present had simply taken advantage of the lessened resistance caused by the primary infection.

The question has arisen if it is better to use a different vaccine for each bacteria or combine them all in one. In cases in which examinations show one bacteria to greatly outnumber and outgrow the others present, I use only that specific vaccine at first. In some instances it will be found that nature can handle the other bacteria. But if subsequent findings show that she cannot, then it is time to direct a vaccine toward them. In cases where two or more micro-organisms are present in equal numbers, and there are symptoms presenting of more than one source, then I use a vaccine containing all of the varieties.

Some splendid results have been obtained in those cases where there is a staphylococcal and streptococcal infection complicating a tubercular lesion. Although still too recent to make any absolute claims, it seems that with the elimination of the pus producers the organism can successfully combat the tubercular infection in a number of instances.

I have obtained good results in the mixed infections, generally the pus producers, that cause periostitis, brawny swelling, sluggishness of operative wounds and infections of the pleural cavity.

In closing let me try to drive home this fact. That to obtain success with opsonotherapy, the physician must study the individual case thoroughly, so as to be able to properly estimate the size and interval of dosage; and keeping in mind the fact that the condition of the blood itself is of the greatest importance. We cannot obtain good results when the red cells, the hæmoglobin or the plasma itself are below par. The white cells should be watched. It is plain to all that it would be fallacy to prepare bacteria for phagocytosis, when there were no polyneuclears to ingest them, and in conditions where it seems that all our efforts are without avail, it is found sometimes that the co-agulating power of the blood is too high or too low, and when this is corrected we are rewarded with a cure.

I wish to take this opportunity to thank Drs. J. A. Flexner, J. Hunter Peak, John Edwin Hays, Whitlach, Spiedel, Pearce and Pirtle for the support they have given me in this work.

A Plea for Smaller Families.†

By A. Schwimg Kiblinger, M.D., and Elliott Kiblinger, M.D., Alexandria, La.

When one sees in almost every medical

†Read before the Section on Medicine, Southern Medical Association, Atlanta, Ga.

journal an article denouncing abortion, and our President urging the people to raise larger families, we are prone to forget that there is another side to the question, and it is that side which we propose to present to you today. Let us assure you at the start that we are not advocating criminal abortions. Be that far from us.

We wish to present the subject from several standpoints. Theoretically it is all very well to urge the masses to have large families; the ideal is high and it sounds nice, especially on paper, but looking at the subject from a biological standpoint, we must admit that the higher the species the fewer they are in number and the more perfect they are; in other words we have quality instead of quantity. Every one knows that the lower in the scale of life we go the more prolific we find they are. In fact, it is a natural law that every energy is bent toward reproduction in the lowest forms of life.

When that great scientist said, the fittest survive, he but expressed what we all know, that it is quality and not quantity that counts.

Now let us look at the subject as physicians. We do not have to remind you of the poverty, ignorance, filth, superstition and babies which we find in the homes of the masses, to mention one but suggests the balance. Look at the baby hospitals, by whom are they filled? Is it not by the poor but numerous? Gentlemen, look at the subject as practical men; given a man,—the majority of the race are farmers or laborers, which means a limited income, with an average sized family; I suppose half dozen would satisfy our President, and what do we find? In our experience the case is about as follows: One with some physical defect; phthisis, imbecility, deformity, or what is worse, a moral defect or perversion.

Next we find the parents are unable to educate them all. Some are poorly clad, or if no impartiality is shown, none are clothed properly.

We believe the race is passing through a period of evolution and the day will come when it will not be in good taste from a standpoint of ethics or morals for a man to have more than one or two children.

To our mind the coci of neiser should be honored for its noble work for the race in limiting reproduction.

In the realm of religion, we find who, that advocate the dogma that unborn spirits are knocking at the portals of existence, and it is our duty to admit them—even if it is by polygamy.

You all will admit that that doctrine is rather anti-religious.

Again what Christian Church advocates

the dogma that it is a sin to ever abort a woman, even if such is required to save the life of the mother? Is it not that church whose members are steeped in superstition and idolatry?

The higher in the scale of perfection the fewer the offspring, say what you will. This glorious nation is founded on the fact that in the final analysis the judgment of the masses of men is best and is correct. Judging from the size of the majority of the families in America today, it is patent that this question has been solved correctly and the small family is the ideal one. What is all this we hear about women's rights? Their entrance into professional and commercial life. Their forsaking the home, and motherhood for a more rational existence. Gentlemen, it is but the rumblings of an evolution in our social fabric that is destined to sweep the enlightened parts of the earth at no distant date.

The fact that one-fifth of all children born, die in infancy shows that in the providence of God we are protected, even against ourselves.

The battle cry henceforth should be better hygiene and reduction of mortality and not more children.

Why raise so many children? Is it not a fact that one-half the race are slaves?

Now, let us investigate the subject from a pathological standpoint—we will but remind you of the mortality of child-birth; grant that we are willing to take that chance, but behold the morbidity! In looking over any text book on obstetrics, one is at once struck with the fact that nearly one-half the subject is devoted to the pathology of child-birth. The deaths, the suffering, the invalid lives, the ruined anatomy of millions of God's most beautiful statues—women, but tell of the havocs of child-birth.

In justice to the subject, it is but right that a treatment be advised. Instead of the ladies of the civilized world going to the doctor's office every month for treatment for amenorrhea, which now obtains, let either the men or women be treated with the X-Ray, which while it sterilizes does not produce impotency. If they are not so situated as to be able to secure that treatment, then let them have their family physician throw a ligature around the tube or vas.

Report of the Examination of the Eyes in Eighteen Cases of Pellagra.†

By E. M. Whaley, M. D., Columbia, S. C.

Gentlemen:—In making this report it will

†For presentation at the Pellagra Conference, Columbia, S. C., November 26, 1908.

be remembered that the patients we are dealing with are insane, which would naturally make us expect to find the nervous element much in prominence. And they are usually well advanced in the disease, except a few in whom it has developed since their stay in the hospital. As this is a preliminary report will leave our conclusions to some later date when we can add the results of the examinations of a larger number.

All pellagra patients are unresponsive and no field examinations could be made; with few exceptions the examination had to be made while the patient was in bed.

The dilated pupil so much spoken of in reports on this disease is conspicuous by its absence, in the eighteen cases herein reported on it having only occurred in one case. Two cases resisted the action of homatropine for two hours where the others reacted in the usual twenty minutes. And hypersensitiveness to light with contracted pupils was the rule.

Is it possible, that the dilating center for the pupils being lower down and subject to more sensitive stimuli are counteracted to such an extent in cerebrally irritative subjects where the higher centers are affected, that we have a contraction of the pupil in insane cases that we do not have in those cases where the medulla and ciliospinal centers with the skin (sensory) reflexes are concerned, as in milder cases where the higher centers are not involved we have a dilated pupil?

In acute cases with overwhelming poison at the season when this poison seems to be most virulent we should expect to find a dilatation of the pupil, due to a paresis of all the pupillary centers.

Shallow anterior chambers were found in sixty-four per cent. of the cases. Intra-ocular tension plus in only one case, and that only in one eye. In six cases the corneal sensibility was subnormal, two hypersensitive, and one could not be tested on account of perforating corneal ulcer and another having paresis.

Strabismus could not be detected when there was no other evident cause, and nystgmus, which is dependent on the muscular paresis, was absent.

Where the gastro-intestinal symptoms are very prominent, and the inflammation extends to the mouth and the post nasal space, we find an obstruction of the lachrymal duct, due to contiguity of surface. This was noted in five cases, all of which had the mucous membranes very much affected by the disease.

The Argye-Robertson pupil was present in one case. Sensory reflex could not be elicited except in one case, and that one

only a suspected case.

The retinae optic nerves and internal eye structures fail to give any symptoms that we could put down as distinctive of pellagra. Some arteriosclerosis, optic nerve and retinal inflammation were present, but could not be said to be due to pellagra.

I hope to be able to keep up this investigation as we have access to more and more cases. Apart from these insane cases, have had the good fortune of having examined three cases in the last year who have since developed this disease, and all of these had photophobia of slight degree without the inflammatory changes that usually accompany this symptom. There was no record as to the pupil at the time, but I remember one to have been dilated and the other to have been contracted. The third one could not be seen on account of the whole cornea being covered with a superficial opacity, not due to previous inflammation, and which disappeared under the use of dionin entirely in three weeks without reaction. A point for consideration in all these results is the season in which the examination is made, as it is reported by our Italian friend that, whatever the poison may be, it is more virulent at some times of the year than at others.

We are not trying in this paper to bring forward any new symptoms but to encourage investigation and thought as to the early manifestation of this dreadful disease that may show itself in the eye early enough for us to institute intelligent treatment before our patient is beyond assistance.

A Case of Tetanus.†

By H. Colles Grant, M.D., Richmond, Virginia.
Mr. President and Fellow Members of the Society:

In offering this brief paper to you there are two points to which I would like especially to call your attention. The first is the nature of the wound in the case which I will cite, and the second is the subsequent hemorrhage apparently from the stomach.

On June the 10th Mr. S., age 35 years, walked into my office to have a wound dressed which he had received while working at a saw mill. He had no idea of what caused the wound, as he was some distance from the machine when struck, and was rendered unconscious by the blow for a few minutes. The wound was a small oval opening on the bridge of the nose just between the eyes and measured a quarter of an inch in diameter. There was a clear opening into the nasal cavity, which appar-

†Read before Medical Society of Virginia, Richmond, Va., October 23, 1908.

ently extended no farther. The nasal bones were perforated by the object which struck him. I cleansed the wound with a 1 to 4000 bichloride solution and removed the loose bone, then applied a wet bichloride dressing. I examined his pharynx to see if there was any bleeding from the nose and could find none, though I swabbed up behind the soft palate with a cotton applicator. He returned the following day and had the wound dressed, saying that he felt first rate. The following day I was called to his house to dress the wound, as he complained of feeling nauseated. On the morning of the 13th, three days after the injury, I was sent for in great haste, as Mr. S. was vomiting quantities of blood. On arriving I found that he had vomited a full quart of clotted blood with some fresh blood mixed with it. I administered a drachm of fluid extract of ergot which had no effect whatever. Then I sent for 1 oz. of adrenalin chloride. He continued to vomit every half hour for four hours, the blood being pure now and not clotted. The vomiting ceased after giving one dose of adrenalin and he began to feel better. He lost in all about three pints of blood. I examined his pharynx between the attacks of vomiting and could find no evidence of bleeding from the nose. He began to improve again, the wound remaining open and doing nicely. On the 12th day after the injury he complained of a feeling of stiffness about his jaws, and on examining them the muscles were found to be quite rigid. I sent for anti-tetanic serum and administered it every four hours. On the following day I had consultation and under chloroform we found that a probe following the track of the missile penetrated in a direct backward course for a distance of four inches. The wound was then curetted and washed out with peroxide of hydrogen and packed with gauze, which was continued daily as a dressing. He was given 24,000 units, or 160 c.c. of anti-tetanic serum. The patient continued to grow gradually worse until on the 28th of June he had a severe convulsion, which was relieved after giving a half gr. of morph. sulph. and one half ounce of somnos. I continued the somnos to allay irritation of the nervous centers and fed per rectum for six days. On July 6th the muscles began to relax and he made an uneventful recovery.

I believe the anti-tetanic serum was a great help, as was also the somnos. The hemorrhage apparently from the stomach I have never accurately accounted for. I soon decided that the wound was caused by a bullet, and that the seat of infection was beyond the opening in the bridge of the nose. I would like to hear the opinion of

some of you gentlemen, especially in relation to the hemorrhage and the anti-tetanic treatment.

An Interpretation of Some of the Recent Studies of the Irregular Heart.

By Alexander G. Brown, Jr., M.D., Professor of Theory and Practice of Medicine University College of Medicine; Physician to the Virginia Hospital, Richmond, Virginia.

Hering,¹ Erlanger,² Mackenzie,³ Hewlett,⁴ Hirschfelder,⁵ and others have made great advances in the study of the heart. These advances have been recorded in the leading scientific journals of the world. The findings have been written of in a more or less technical manner. The experiments on animals and the graphic records made on the human heart and circulation have been recorded and described in a manner not at once clear to the average reader. In an effort to arrange and to interpret the new facts of arrhythmia, it may be well to review briefly the physiology of modern times as it relates to heart beat.

The present views of modern physiology of the heart began with Ludwig about twenty-five years ago. His study of the frog's heart served as a basis for the new views he enunciated. He promulgated the idea that the Vagus inspired and perpetuated the heart beat. Later Gaskell, investigating this physiologic-first-principle, by operating a series of experiments on the heart of the land tortoise, contradicted the idea of the nerve-origin of heart beat and proclaimed his belief in the myogenic doctrine of it. He described the beat as beginning in the sinus and as being conducted by the musculature on to the ventricle. Newell Martin gave strength to this idea by confirming the same by experiments. It remained for McWilliams to show the similarity of the cardiac action in cold blooded animals and man. But at this point in the discussion, Riinger and Loeb stated it to be their belief that the ions were essential to muscular contraction in heart structure. They claimed that the presence in the blood of calcium chloride and sodium chloride is essential to the maintenance of

1. Hering; Deutsche Medizinische Wochenschrift, Berlin, Nov. 14, Vol. xxxii, No. 46, pp. 1889-1928.

2. Erlanger & Hooke: Johns Hopkins Hospital Report, 1904, and others.

3. Mackenzie, Jones: The Studies of the Pulse and Movement of the Heart, London, 1903. New Methods of Studying affection of the Heart, Brit. Med. Jour., 1905.

4. Hewlett, A. W.: The Common Cardiac Arrhythmias and their Clinical Significance, Internat. Clinic, 1907, Series 17, and many others.

5. Hirschfelder, A. D.: Recent Studies on the Circulation and other importance to the Practice of Medicine, J. A. M. A., Vol. LI, No. 6, and others.

heart beat, while not necessary as an excitant of it. Now, Mills, to whom much of this historical sketch is assignable, lays down the proposition that the heart's action is excited and maintained by the combined influence of all the foregoing factors, namely, nervous, muscular and chemical. He says, however, "the exact share each takes, it is impossible to determine at this time." After all, it is thought that the muscular factor is the predominant one, subject to the influences coming to it through the nervous system and the chemical constituency of the blood.

Heart beat is normally regular. The systole of the auricles and that of the ventricles bear a definite time relation to one another. Mackenzie fixes the time between the systole of the auricles and the systole of the ventricles at 0.2 of a second. The systolic action of the auricles and that of the ventricles become under some circumstances deranged and produce certain heart irregularities. These irregularities, in the cardiac cycle, have been closely studied in recent years and the findings have been graphically recorded by physiologists and clinicians.

Hirschfelder has recently classified these arrhythmic exhibitions under four heads: the first and second groups will not receive attention at this time. The first group embraces those disorders of the heart which are of neurotic origin, that group of irregularities amenable to atropine, which paralyzes the vagus terminations in the heart.

The second group embraces those irregularities due to myocardial debility and characterized by diminished contractility. These cases show *pulsus alterans*. The third group includes the three varieties of heart block due to the interruption of the contraction stimulus traveling along the muscle bundle of His. There may be (1) Sino-auricular block; (2) Auriculo-ventricular block; (3) Inter-ventricular block.

The fourth group comprises those conditions in the cardiac cycle known as extrasystoles. These are abnormal impulses occurring in the action of the auricles, ventricles or the bundle of His.

Before proceeding further, let us again refer to the theory of heart-beat. Upon the myogenic theory are based nearly all the studies of heart irregularities. In the broadest conception of the properties of heart muscle, five distinct qualities are found to exist, namely, automatic stimulus production, conductivity, irritability, contractility, and tonicity.⁶ These characteristics are peculiar to heart muscle and any abridgement of the use of them affects the regular cardiac events and sets up some abnormality in the heart's action. These

qualities are peculiarly assignable to the special bundle of muscle fibres, known as His' bundle. This bundle of muscle fibres possesses the ability of originating and transmitting the heart beat from the auricle to the ventricle. Thus is performed the auriculo-ventricular systole. As described by Retzer, so states House,⁷ the auriculo-ventricular bundle of His is approximately 18 mm. ($\frac{3}{4}$ in.) long; 2.5 mm. (1-8 in.) broad, and 1.5 mm. (1-16 in.) thick. It arises in the *venus ostia* of the right side (inter-auricular septum) and, penetrating the auricular-ventricular septum, is distributed along the wall of the left and right heart. Originated in the bundle of His, the contraction wave, traveling from cell to cell, passes down this muscle bundle, varying in character and degree according to the state of its conductivity, irritability, contractility, and tonicity.

Heart Block is a functional disturbance of the cardiac cycle and is to be defined as an interference with the conductivity of the bundle of His as shown by a partial or complete suspension of its muscular contraction wave. As stated above, the normal time for the transmission of this contraction wave is 0.2 of a second (pulse rate 70). The graphic representation of this period by clinicians and physiologists has resulted in calling this the a-c interval, it being the time used by auricular systole, by passage of the contraction wave from auricles to ventricles and that portion of the ventricular contraction which occurs before the opening of the semilunar valves.⁸

Sino-Auricular Block is a suppression of the auricular contraction in the confines of the auricular chamber. This is a functional disturbance of the contraction wave. This variety of heart block is produced by the use of digitalis and has been extensively studied by Hewlett. By use of digitalis the a-c interval has been prolonged gradually; and finally, under its continued use, the contraction wave has been entirely stopped in the auricle, the ventricle failing to contract. The explanation is in the action of the digitalis on the vagus; for, by the use of atropine, which paralyzes that nerve termination in the heart, normal heart action has been restored. This experimental production of the sino-auricular block by digitalis must lead to the conclusion that this drug is contraindicated in

6. Norris: Cardiac Arrhythmia, Amer. Jour. Med. Sciences, July, 1908.

7. House: J. A. M. A., Vol. xxlix, No. 22, Stokes-Adams Disease.

8. Hewlett: Digitalis Heart Block, J. A. M. A., Vol. xlviii, No. 1.

those conditions which show block within the auricle.

Auriculo-Ventricular Block is due to the impairment of the conduction of the bundle of His. The auricle may beat three times to the ventricle's once. The radial pulse may be only 20 to 40 per minute with a venous pulse much faster. The ratio may be 3 to 1 or 2 to 1. There may be, in other words, a very noticeable disassociation of the auricular from the ventricular systole. In fact, the block may be so complete that the ventricle starts its own systole. This form of heart block may be due to sclerosis of the blood vessels, myocardial degeneracy, tumors or stimulation of the vagus. In the temporary block, the explanation may be some asthenic state, as that following diphtheria, typhoid fever, rheumatism and other affections. In its most marked form this is called the Stokes-Adams syndrome.

Inter-ventricular Block is, says Hewlett,⁹ the most important clinically. Mackenzie estimates that over 50% of all serious insufficiencies are associated with this irregularity. The chief factor in this variety of heart block is the absence of auricular contraction with entire disassociation of the ventricular systole. There is what is called *Delirium Cordis*. In this trouble no two valves beat in unison. The pulse and the heart beats are not related in time. This state of delirium cordis marks the approach of death.

Extrasystoles or abnormal impulses are due to some irritation in the muscular structure of the heart. The ventricle is more usually the site of the irritation, although extrasystoles are known to arise in auricles and in the bundle of His. Hirschfelder¹⁰ says of the latter type that the diagnosis may be made by noting that the conduction time is shorter than normal. Extra contractions arising in the auricles are due to irritation in the bundle of His at its origin or to the inability of the auricle to empty itself as is the case in Mitral Stenosis. Extrasystoles of the ventricles are due, also, to the inability of the chamber to empty itself. The explanation of these irregular contractions occurring in the cardiac cycle is that the heart muscle, as the refractory or rest period comes to a close, becomes more and more susceptible to stimuli. During this excitable period, abnormal impulses set up a new out-of-time contraction, which may be

weak and futile, or which may be of sufficient strength to produce an arrhythmic pulse wave. A number of extrasystoles succeeding one another give rise to a quickening of the pulse rate, and produce a state of pulsus bigeminus, or pulsus trigeminus, and even a paroxysmal tachycardia.

Wenkbach¹¹ has grouped these extrasystolic hearts into four clinical classes.

1. Congenital or acquired sensitiveness in muscle to stimuli. This is seen in those persons who, living to old age, have periodically a disturbance of cardiac rhythm without harmful effects and with no heart lesion.

2. Extracardiac causes, such as toxic and nerve disturbance, seen in convalescents from infectious diseases (typhoid, pneumonia, diphtheria) in the use of tobacco, alcohol, tea, coffee, and in aborted metabolic processes.

3. Cardio-vascular group: those persons showing hypertension, arteriosclerosis, chronic nephritis.

4. Cardio-pathic group: that large group of persons with cardiac lesions.

Acute Inflammation of the Antrum of Highmore Complicating Influenza.

Jones (Australasian Medical Gazette) says a man of 59 consulted him on account of a severe pain and sensation of bursting or fullness in the right side of the face, coming on two weeks after an attack of influenza, which had been followed by a severe catarrhal condition of the air passages, with spasmodic cough. When first seen he looked ill, and was suffering from a severe coryza. The pain and tenderness was most marked over a swelling in the zygomatic region, coughing or any attempt to clear the nose very much increasing his discomfort. Transillumination of the face gave darkness on the right side; pulse 100; temperature 101.5 deg.; tongue very dirty. The right side of the nose was blocked by muco-purulent matter, which was evidently blocking the hiatus semilunaris, for on its removal under cocaine fully $\frac{1}{2}$ ounce of muco-purulent matter flowed from the antrum, giving the patient immediate relief. Drainage was provided for by keeping the head on the opposite side.

Ovarian Dermoid Cyst; Suppuration and Discharge into the Bladder.

Barnsby, in the British Gynecological Journal, reports the case of a woman, aged thirty-eight, in whom when pregnant several years previously a cyst of the ovary had been detected, torsion of the pedicle occurred, and the cyst suddenly increased in size with severe peritoneal symptoms. Nevertheless the patient would not consent to an operation, and eight weeks later Barnsby had to

9. See full description: Hewlett: Clinical Observation on Absolutely Irregular Hearts, J. A. M. A., Vol. L.I., No. 8, p. 655.

10. Hirschfelder: The Circulation, J. A. M. A., Vol. L.I., No. 6.

11. Norris: A. J. M. Sc., Vol. XXXVI, No. 1, page 57.

perform an urgent operation upon her in a state of exhaustion the day after the spontaneous perforation of the cyst into the bladder. In the course of the operation the tumor was found to be everywhere adherent, it burst, and proved to be a suppurating dermoid communicating with the bladder. The appendix, of which the lower third, bent and obliterated, contained pus, was adherent to the wall of the cyst. There was also a large uterine fibroid and hydrosalpinx on the left side. The cyst and the appendix were removed, the breach in the bladder stitched up, and a supravaginal hysterectomy performed, leaving the left ovary intact. The recovery was uninterrupted and complete.

Maceration of the Fetus in Relation to Legal Medicine.

G. Pisane, after a study of sixteen fetuses that had undergone maceration, with reference to the reliable signs of maceration and the length of time since death occurred, gives us his results tabulated. He states that the fetus is very flaccid, all the serous cavities are filled with imbibed fluid, the bones of the cranium are loose and flap about, and all the tissues and organs have imbibed blood pigments. The endothelium of the blood-vessels becomes softened and detached, and the blood pigment then passes out into the tissues. He finds that the amount of coloration varies with the length of time since death, increasing gradually. This pigmentation is of scientific importance and may be used for diagnosis if properly limited, but used too widely it may lead to mistakes.—*Annali di Ostetricia e Ginecologia*.

Mode and Duration of Contagion in Scarlatina.

Zilgien thinks that we are passing from the phase in which we believed that scarlatina was most contagious during the stage of desquamation into one in which we recognize the fact of its marked contagiousness during the period of the angina. He believes from his observation of such cases that after the acute symptoms in the throat have ceased in many cases the patient may be allowed to mingle with society without danger. The products of expectoration from the throat are the most dangerous means of carrying the disease. In other rare cases the contagion appears to continue long after desquamation is complete. The author describes a case in which there was severe angina, and isolation was carried out. Some time later another attack of angina occurred and in this also isolation was carried out, and no contagion was carried to any other person, although a profuse desquamation

went on for several weeks. To offset this case he describes an epidemic occurring in a school, in which one child seemed to be the source of contagion to others long after desquamation was complete. The author believes that the means of contagious infection is generally a suppurating of the middle ear, or the presence of adenoids, or hypertrophied tonsils, in which the means of infection is carried for a long time. Prophylactic treatment would include the care of the throat and nose especially, and their daily disinfection as long as suppuration lasts.—*Journal de Medicine de Paris*.

Treatment of Cancer of the Female Genital Organs.

J. O. Faure describes his experience in the treatment of cancer of the female genital organs and his results. There can be no divergence of opinion as to the operative treatment of cancers of the external genital organs, tubes, and ovaries. The only appropriate treatment is removal wide of the growth and as early as possible. Cancer of the vulva requires the removal also of the inguinal glands of both sides. For cancer of the fundus the preferred operation is abdominal hysterectomy. It is sometimes advisable to leave the cervix, since this is generally entirely normal, and recurrence occurs not there, but in the pelvic glands. Total hysterectomy is to be preferred, however. Cancer of the vagina is to be treated as cancer of the vulva is—when occupying the lower two-thirds, being removed as that of the vulva is. When higher up it is almost impossible to remove it without taking away the uterus also. The vaginal route is not to be thought of, since it is impossible to see the boundaries of the growth on account of the narrow space and the hemorrhage that occurs. Cancer of the cervix should also be removed by abdominal hysterectomy for the same reasons. The author ligates the hypogastrics and removes all the glands that can be easily felt with the finger. To remove all the glands and cellular tissue is impossible, and the attempt is not advisable, since it opens to infection the large cellular spaces. The author's series of cases operated on between 1903 and 1905 includes eighteen cases, of which ten are alive and apparently cured. These durable results the author considers good. His later cases are too recent to be sure that recurrence will not occur.—*Annales de Gynecologie et d'Obstetrique*.

Where there is a burning sensation when urinating, sanmetto in teaspoonful doses three or four times a day usually gives relief. If the urine is alkaline ammonium benzoate in connection with sanmetto will prove helpful, and citrate of potash when the urine is acid.

Charlotte Medical Journal

Published Monthly.

EDWARD C. REGISTER, M. D., EDITOR.

CHARLOTTE, N. C.

THE PATHOS OF MEDICINE.

Mrs. Jones and Mrs. Smith were gossiping over their tea-cups. The venerable Dr. Martin happened by.

"There's old Dr. Martin," said Mrs. Jones: "I wonder why he doesn't retire."

"Oh, so do I," said Mrs. Smith. "He is getting so old, I just won't call him any more."

Well, why doesn't the doctor retire?

It is a pathetic story. Ask the doctor, and if he is frank he will tell you he can not. He is feeble; he has out-grown his period of usefulness; he wants to retire but can not; he is forced to continue that he may eke out a bare living.

Yet, each day his practice grows smaller; families he served in youth, faithfully and conscientiously, desert him; children he brought into the world, children he attended in croup, diphtheria and in scarlet fever laugh at his gray hairs and bowed shoulders; fathers whose accounts he carried patiently and without effort at collection lest he embarrass them, shun him—they owe him still; and the poor, in times past seemingly so grateful for services rendered them, go elsewhere for their charity.

Is the doctor a failure—after all? No, he is an average man, a type of practitioner which the world considers successful. In the hey-day of his prime, he was a busy man, and everybody had a good word for Dr. Martin—family physician, counselor and advisor to all. He made good money, but the demands of his position and the necessities of his profession drew heavily upon him; and he saved little.

It is an old story. He reaches that time of life when the banker, the merchant and the lawyer retire with a competency. The doctor's only assets are his broken down estate and a whole bundle of dead accounts. We should forgive him if he grow embittered; we should indulge him if he grow eccentric.

Young man, do not talk slurringly of the old doctor; do not smile indulgently as you whiz past the broken man in your four-cylinder runabout. Be kind to him, considerate and—accept his advice. He will tell you to make the most of your limited opportunity; save more, spend less. There will come a time when your patients, those who regard you so highly now, will desert

you one by one; and the young man just around the corner will wax fat and confident.

The public are fickle. Do not flatter yourself into thinking they will favor you as long as you last. It is inevitable that you rise and fall—and *fall*—in their esteem; and so surely as you are in medicine will there come a day when you too will feel your practice slipping, slipping surely away from you. Ask old Dr. Martin, he will tell you.

This is the most pathetic story of medicine. The old doctor merits a rest; he merits an estimable old age; and he wants to retire, but cannot—he simply can not.

THE GENERAL ADMINISTRATION OF ANESTHETICS.

A note of the greatest import to the medical profession was struck, when in his presidential address before the American Gynecological Society Dr. Baldy characterized the present day administration of anesthetics as the shame of modern surgery and a disgrace to a learned profession.

In support of so sweeping a statement Baldy refers to the many fatalities, direct, and much more frequently, indirect that may be traced to an inefficient, inexperienced anesthetist. He condemns the long established and time honored custom of having the anesthetics administered by the residents in hospitals, and in private houses by any physician in the neighborhood who can give the time.

The man who is able and ready to pay any amount of money for the services of the most skilful surgeon available, has his life and those of his family unknowingly put at the mercy of a boy just from his books, with absolutely no knowledge of practical anaesthesia, and with less teaching.

The blame for such conditions falls neither upon the young men who are earnestly striving to do work which has been put into their hands, but for which they are not fitted, nor upon hospital managers who accept customs as they find them and depend upon their medical staff for instruction in medical matters.

The full responsibility rests upon the medical profession, who remain by the tradition of the dark age of surgery, and who have so devoted their attention to the discovery of new operations and the development of their technique that they have too long forgotten one of the most vital points in their operating rooms.

The remedy lies in having a salaried etherizer in every hospital, with a salary sufficiently large to attract to the service men of the proper intelligence.

The value of women for such positions is

most strongly emphasized. They will be willing to devote themselves to the work for a smaller salary than that which would tempt a medical man to specialize in this branch. Again the feminine characteristics are such as to tend much more to the soothing and quieting of a nervous, frightened patient than are those of men.

It would seem that reform and progress in the matter of the administration of anæsthetics is one of the pertinent questions of the day, and the results depend upon the medical profession, and upon them alone.

MODERN VIEWS CONCERNING EXTRA-UTERINE PREGNANCY.

During the recent meetings of societies devoted to the consideration of Gynecological subjects, there has developed a tendency to change existing views as to the prognosis and treatment of ruptured intra-uterine pregnancy. Experiments have been performed upon dogs, to show the resistance to hemorrhage. In dogs it was found that even when both uterine arteries have been severed, there resulted little or no effect upon the subsequent health of the animals.

These experiments, together with certain clinical observations, have led to the thought that when death does occur after the rupture of an ectopic gestation sac, it is due not to the hemorrhage but to secondary shock.

It is held as a corollary to these observations that expectant treatment with rest and adequate stimulation, is the procedure of choice in such cases.

This treatment is held to bring about the formation of an hematocoele which may be removed at some subsequent period, when the patient is in condition to withstand celiotomy.

While, as has been said, the foregoing principles have been confidently advocated and have found some converts, by far the great majority of surgeons still hold extra-uterine pregnancy to be a condition always necessitating immediate surgical intervention.

The fact that dogs suffer no inconvenience upon division of the uterine and ovarian arteries, has absolutely no bearing upon the discussion, since many surgical tragedies have amply demonstrated that failure to obliterate by ligature any one of these arteries, results in certain death to the patient, unless the hemorrhage be surgically controlled.

Again, in spite of entertaining theory, it remains true that ectopic gestation with rupture has resulted in death in many thousands of women where operation was delayed, by reason of errors in diagnosis or

other causes.

It is true however, that there is a certain group of cases where shock is so severe and, the debility so marked that any operative interference would almost certainly prove fatal. In these cases expectant and constructive treatment offers the only hope of success, and it is the results obtained which has led certain observers to increase the number of cases in which the method is indicated.

Even if it be granted that immediate death will not follow in a majority of such accidents, account must be taken of the action of a large clot in the pelvic cavity. The most hopeful result in the formation of hematocoele but it is impossible to at all prognosticate this possibility,

The hematoma may undergo suppurative changes, with the development of pelvic peritonitis or localized abscess, or should the clot happily remain sterile, there is a great probability that dense adhesion will fuse it to surrounding structures, making secondary operation difficult or dangerous.

The third and most rare sequel is the secondary attachment of the placenta to the abdominal parietes or some viscera.

Such complications of course render the absolutely necessary laparotomy dangerous and the prognosis doubtful.

Upon the whole then, there seems as yet no logical argument advanced to alter the usual treatment of extra-uterine pregnancy—abdominal section as soon as the diagnosis is established, either before or after rupture, the only indication for delay, being the desperate condition of the patient from shock or hemorrhage, where delay may be justified.

MEDICAL EDUCATION.

If any one had predicted fifty years ago, when a two year medical course was in vogue, that the standard of medical education would have been advanced to its present status, both in preliminary education as well as in the regular medical course, his statements would have been ridiculed, or at least received with contempt as to their authenticity. During the past two years the standards have been advanced in a number of schools, so that we now note an almost uniform feeling towards a preliminary educational standard equal to that recommended by the Committee on Education of the American Medical Association, and with which we are doubtless all more or less familiar. An examination of the catalogues of a number of our schools shows plans formulated for a five year medical course, and in several instances this is now in actual operation.

This additional year gives abundant op-

portunities for more thorough clinical work in the hospital wards which is of the utmost importance to the student, and Dr. John B. Murphy, of Chicago, calls attention to this very fact in a recent address before the Medical Club of Philadelphia, in which he says:

"The preparation along technical lines is better than ever before, but we are overlooking clinical work and substituting that of the laboratory. For clinical purposes the tremendous advantages offered by the modern hospitals should be used, and students should be closer observers of patients during every phase of a disease."

The science of medicine is progressing proportionately with the other sciences, and the future practitioners of our present generation may yet see another year tacked on, so that a man will reach nearly the thirty-year mark before he will be properly prepared to practice his profession.

Combine this fact with the average life of an individual, and it is apparent that the financial remuneration for our services should be increased, if the actual cost of living continues to increase as it has in the past ten years.

This economic side of our profession will gradually adjust itself to the exigencies, as they arise.

PUBLICITY IN MEDICAL KNOWLEDGE.

In an address before the Medical Club of Philadelphia on October 16th, 1908, Dr. John B. Murphy, of Chicago, forcibly emphasizes the importance of the medical profession educating the public more thoroughly on medical matters, for only by this method can we hope to retain our prestige and inculcate that confidence which is so essential in the treatment of disease. This same subject was the keynote of Dr. Herbert L. Burrell's presidential address at Chicago in June, before the American Medical Association. Sad to relate, but nevertheless true, we have been too much inclined towards mysticism in our relations to the public, and the time for a change is at hand, and every county society throughout the United States should make this subject an important study and devise means to carry out this education through a *Publicity Committee*, who could present popular lectures on suitable topics, literature can be distributed, and at times the public press could be utilized to present essential truths. Matters pertaining to hygiene and sanitation, such as are now formulated by boards of health in the larger cities could be explained, and such topics as the milk supply for infants, precautions against the spread of contagious diseases, the proper preservatives for food supplies in warm weather, vaccination

and the routine examination of school children in our public schools, afford merely a few examples of the many topics that could be employed. In this way we impress on the public an interest in their physical welfare, and in return we receive greater respect, for after all this is our duty in the pursuit of that high and noble calling in the "poorest paid" and "hardest worked" profession that any human being can pursue, a profession that is continually working against its own financial gain in order to advance preventive medicine.

THE MODEL INFANT. WHO IS RESPONSIBLE FOR IT?

The infant's mind is plastic. It is capable of being molded to conform with the will of the parents; yet, how rare the model infant.

Are the average parents remiss in their duty to their child that it should rule the household—a tyrant by day and a ruthless destroyer of repose by night—or is the child an unconscious reflector of their personality? At any rate, the child is not to blame.

But, on the other hand, are the parents wholly to blame? If not, who?

Doctor, it is a delicate question; consider it well. Have you ever instructed the mother after the birth of her first child how that child should be cared for? Have you ever suggested that the infant could and should be trained?

No, it is not beyond your province; your duty does not terminate with the third visit after the night of agony. Training of the infant is synonymous with good living in the adult; both conduce to good health. And health, good health, is the constant object of your endeavor. Prevention is the sublime attainment of medicine.

True enough, the mother—and it is she who most often attends the child—has that which you do not possess and cannot wholly understand, the mother instinct. However, except she be judiciously advised, this instinct is prone to lead her astray in the care of her offspring. Your counsel, therefore, should supplement and guide these natural tendencies with which Nature has endowed her.

For example, the child cries. There is nothing extraordinary about this. But the mother, impelled by sympathy, coddles it and bounces it on her knee. The crying continues; she feeds it. The crying still continues; she gives it C—a or other form of opium—her mother or her neighbor told her to.

Now, Doctor, do not chide her; instruct her. She has done the best she knows. The opium stops the crying. The logical

conclusion is it makes the child feel better—of course, it does. If she knew she was making a dope fiend of her beloved one she would think twice before administering the next dose. Tell her, Doctor, she will appreciate it.

Regular feedings in suitable quantities very frequently will prevent the little discomforts of infancy. Explain this to her; she will bear you no grudge.

Occasionally baby will have colic in spite of precautions—perhaps she has swallowed a bit of paper from the floor. Demonstrate to the mother the efficiency of a small glycerine suppository or enema. She will try it herself the next time.

Baby claims the privilege of putting all things into its mouth, a habit the mother encourages by supplying rubber toys, rattles, ivory rings and the pernicious passifier. A word of advice with respect to this would do a world of good.

However clean it may be, the floor is a prolific source of microbic infection. It is no place for the delicate infant to wallow.

The training, the care of infants is but a series of little things. Your experience has taught you what they are. The average mother has not know. She is but a mother and has not spent four years and more, she has not invested a couple of thousand of dollars to learn. Teach her, Doctor. If not actuated by a love for the little ones, if you have no interest in their welfare, consider the return to you in increase of practice. Your success with the child will cause the mother to sound your praises far and wide. The result is obvious. Therefore, Doctor, instruct the mother in the care of her child.

TOXAEMIA AND INSANITY.

The pathogenesis of insanities, with the exception of paresis, is still a matter of speculation. There is, however, a reasonable tendency to regard a toxic action as the most important factor in insanity. Histology and morbid anatomy have proven their inability to elucidate the various mental phenomena observed in mental pathology. We must look to other sciences, and especially to physiological chemistry, for the solution of the problem of insanity. We are now prone to consider mental derangement as the result of disordered metabolism in the cells of the brain. The functional activity of the latter being disturbed or destroyed, dementia, delusions, hallucinations and illusions will ensue. Toxaemia as a main cause of insanities is practically accepted by the majority of modern alienists, and any additional contribution to the subject should be accepted with great interest. A. A. D. Townsend's recent publication in

the *Journal of Mental Science* on the significance of indoxyl in the urine in cases of melancholia is to be considered a valuable additional proof in favor of a toxic condition in this form of mental affections. Indoxyl is present in normal urine as a result of intestinal putrefaction, but in very small amount (0.005 to 0.025 grain in 24 hours). Should it be present in excess, it will indicate abnormal putrefactive processes in the gastro-intestinal tract. The author examined very carefully 16 cases, observed them before and after an appropriate treatment and could draw this practical conclusion: that the severity of the mental symptoms bear distinct ratio to the excess of indoxyl, and that the diminution and disappearance of the excess of indoxyl in the urine has taken place with the improvement in the physical and mental health of the patient.

Should this be totally established, it opens up a new field for the treatment of certain mental states, and an early recognition of the condition and an adequate treatment might possibly prevent the development of mental symptoms. Dr. Townsend has found that free purgation and a diet exclusively of milk diminished considerably the excess of indoxyl.

ABORTIONS AND ECTOPIC GESTATIONS

The early interruption of pregnancy occurs so frequently that every practitioner comes to look upon this phenomena of wedded life, as a commonplace affair. In the vast majority of cases, it is a trivial matter and recovery from it is prompt and complete. This applies, of course, only to spontaneous abortions, where instrumentation and contaminating palpations are absent. Cases of induced abortions do not fare so well as here the chances for an infection is considerable. It is because of the very ordinary nature of the condition that a mistake in the diagnosis is sometimes made. The case appears so simple, there is a history of an amenorrhœa, for one or more periods, with very positive objective symptoms following. A sanguinous vaginal flow, some cramp-like pain, the expulsion of clots of membrane and the diagnosis is established. But if these are the only symptoms that are relied on for the diagnosis, at some time or another, an erroneous diagnosis and prognosis will be made. Every case of early pregnancy interruption, no matter how plain the evidence of the condition may be, should receive a careful examination, because an ectopic gestation may exist in spite of the fact that the history of an abortion is so clear. It is good to learn from the experience of others and literature shows that such errors as calling the case an absorption when a tubal

pregnancy existed, has occurred at the hands of very good men. It is not because these men were unable to make a diagnosis of ectopic gestation that the mistake has occurred, but because they were satisfied to establish a diagnosis without a complete examination. It is not meant to infer that the diagnosis of an ectopic gestation is a simple matter. On the contrary, sometimes the condition is a very difficult matter to diagnose. What is essential in dealing with these cases is to bear in mind the possibility of an extra-uterine pregnancy. Nothing short of a complete examination to verify the diagnosis should be considered sufficient in these cases to avoid errors. Once a diagnosis and a favorable prognosis has been given, it is a most disagreeable task to, not alone have to change the diagnosis, but turn a very favorable prognosis into an unfavorable one. Even in the face of an expulsion of membranes from the uterus, a verifying examination need be made to exclude an ectopic gestation, because the expelled membrane may be a uterine decidua which frequently forms in the uterus in an extra-uterine pregnancy. In every case of miscarriage a bimanual examination should be made, and the palpation should determine three facts: Is the uterus enlarged, is the os open, and is there a palpable mass on the pelvis other than the uterine body itself? If the cul-de-sac is full or if a mass or masses are felt to one side or other of the uterus, the suspicion of an ectopic should be aroused. Once the suspicion of the examiner is aroused, an error in diagnosis will not occur, because every effort will be made to clear up the diagnosis and account for all the symptoms, subjective. We may have a uterine abortion and we may have a tubal abortion, but is skillful to differentiate these two kinds of abortion.

CARE OF LEPERS.

The recent case of the leper, Early, at one time a resident of North Carolina, who was found to be suffering from leprosy while in Washington, and who is being cared for in that city, is one of interest to all thoughtful people. A case similar in that the unfortunate was afflicted with the same disease, but much more lamentable in its ending, was that of the Syrian leper who was hounded from town to town and from State to State for no fault of his own in the summer of 1906. These two incidents, and the one of Mrs. Wardwell in Arizona, have demonstrated in a striking way the absence of proper provision for such cases. The panicky fear of the people in the case of the Syrian would not have shown itself had

there been some way of caring for the unfortunate.

In 1901 there were 278 lepers in the United States. There are at the present time probably in the neighborhood of 300. These are scattered irregularly throughout the country, and whereas one or two States have a sufficient number to warrant some provision for their special care and isolation. Some of the others have but one or two known cases, and many none at all except as cases may occasionally occur, as the three above mentioned. The consensus of opinion is that individuals suffering from leprosy should be isolated, and on the other hand humanity demands if not that they be made comfortable, at least that they do not suffer for the common necessities and simpler comforts. It would seem that all these unfortunates, with the exception of those the individual States preferred to take charge of themselves, could best be taken care of in one institution which for convenience might be established by the federal government and supported from the national treasury, or by each State paying for the care of lepers sent by it for treatment. Such an arrangement would greatly diminish the number of foci of the disease scattered among the States and for this reason would have no important sanitary value. The economic advantage of supporting all cases of the disease in one institution rather than in many smaller ones is self evident. Then too with such an establishment, our ideas of the demands of humanity and civilization would not be wounded by the frequent occurrence of isolated cases and the inhuman treatment accorded them as in the case of the Syrian who died in West Virginia in 1906.

QUARANTINE AGAINST COMMUNICABLE DISEASE

The State of Texas has taken a positive stand in the matter of quarantine against infectious diseases. On Nov. 15, a rigid quarantine was proclaimed against persons infected or liable to be infected with small-pox, yellow fever, cholera, typhus fever, bubonic plague or *other communicable disease*, either within or without the State of Texas. While not expressly stated it is to be inferred that tuberculosis is included under the head of "*other communicable*" diseases. For some time certain portions of Texas have been the resort of large numbers of people suffering from tuberculosis. It must be readily admitted that this is a menace to any State or community. Profuse foci of infection are thus formed from which the disease may be spread far and wide. Such a law, however, must inevitably work a hardship for great numbers of persons. A change of climate is absolutely

essential for certain patients suffering with the dread disease, and when they are debarred from the advantages of so salubrious a climate as is to be found in portions of Texas, a certain pity must surely rise in the minds of the humanitarian. And yet there is so much on the other side to consider. The well must be protected. From a purely utilitarian standpoint—theoretical, and utopian too, if you please—it would be best if every State would establish a strict quarantine against tuberculosis, both without and within its borders. If these measures were possible, the disease might be as quickly and as thoroughly eradicated as small pox has been.

In Dr. Winn's paper, November issue, page 323, third line from top of first column, he was made to say by our printer, with reference to bimanual dilatation—"the index fingers of both hands," etc.

The correct reading is as follows: "the index finger of each hand, and successively the remaining fingers of both hands," etc.

ARTIFICIAL RESPIRATION.

Artificial respiration, although necessarily used in cases of asphyxia, and at times because of the effect of anæsthesia, is perhaps of greatest importance in the resuscitation of the apparently drowned where its efficiency is taxed to the utmost. It is interesting that during the eighteenth century it was little used in cases of drowning, dependence being placed mostly in the application of heat, warm and medicated baths, and bleeding. Other practices, which now seem peculiar, were also in vogue, such as injecting tobacco smoke into the rectum in the belief that there the spark of life remained longest and that stimulation of it would restore functioning to other parts. About 1840 the value of artificial respiration began to be appreciated at its real worth. In 1856 Marshall Hall strongly advocated its utility and suggested a method consisting of rolling the body from the prone to the lateral position with pressure on the back when prone. In 1858 Silvester advocated another method in which the subject was placed supine and the arms alternately extended above the head and returned to the sides with pressure on the lower thorax. Howard in 1868 suggested a method consisting essentially of placing the patient supine and producing intermittent pressure upon the lower ribs, which in its simplest form is often used as an emergency method during anæsthesia. In

1891 Smith proposed a combination of the Silvester and Howard methods. This is very effective, and is the method commonly used by the United States Life Saving Service.

That all these methods of artificial respiration will produce an alternate in- and out-flow of air in the lungs is evident whenever they are used, and their usefulness in cases of apparent drowning and asphyxia has been repeatedly demonstrated, but until comparatively recently no successful attempt had been made to ascertain definitely their relative merits based upon the measured amount of air that was respired in a given time by the various procedures. Schafer¹ in his most recent article on the subject gives the results of some very interesting experiments. He measured the air respired in natural respiration, and in artificial respiration by the Silvester, Marshall Hall, and Howard methods, and found that the Silvester method gave the least exchange of air, and the Howard the greatest, but that they all gave appreciably less exchange than natural respiration at rest. He suggests a method which he terms the "Prone pressure method," and with which he secured a greater exchange of air than in natural respiration. This method consisted of placing the patient prone and then kneeling at the side or astride the patient with the hands resting on the back over the lower ribs. The operator then alternately swings his weight forward on his hands and back again on his knees, thus producing alternate pressure on the subjects back and thorax. This is repeated about 12 times a minute. The advantages claimed for it are that it is the most efficient, that it can be performed without fatigue by one person, that it is simple and easily performed, that the patient being prone it allows the flaccid tongue to fall forward instead of obstructing the larynx as happens when the subject is supine, and at the same time water and mucus can run freely from the mouth and the entrance of air is not interfered with. This method is so simple and the results obtained with it by its author are so much better than obtained with other methods that it seems to be well worth serious consideration by those called upon to use artificial respiration.

MILK AND INFECTIOUS DISEASES.

Much attention is being given at the present time by health officers and others to the relationship of milk to the public health. The importance of this subject has been appreciated for sometime, but during the

¹ Journal American Medical Association, September 5, 1908.

(1) Trask, Bull. No. 41., Hyg. Lab., U. S. Pub. Health and Mar.-Hosp. Serv., pp. 21-147. Also Jour. Amer. Med. Assn., October 31, 1908.

last few years increasing evidence of its sanitary bearing has attracted widespread attention throughout the United States. A compilation made within the last year of 500 epidemics of typhoid fever, scarlet fever and diphtheria spread through the agency of milk (1) shows in a convincing manner how this foodstuff is a direct and frequent agent in the spread of these diseases. In cities milk rauks with water as a cause of typhoid and with scfool and contact infection as a cause of scarlet fever and diphtheria. Typhoid and diphtheria bacilli will grow in milk if they once gain entrance, and both organisms have been isolated from market milk on several occasions by competent workers. Raw cow's milk, it would seem, must necessarily, therefore, be a constant menace because of the conditions under which it is produced. The attempt has, and is being made, to supply cities with a clean safe milk by the inspection of producing farms and distributing dairies, and in some cities the milk must be delivered below a certain temperature and the bacterial content must be within certain limits. In 1905 the Boston Board of Health fixed by regulation the maximum temperature for marketable milk at 50 degrees F., and the maximum bacterial count at 500,000 per cubic centimeter. Regulation and inspection are greatly improving milk supplies wherever conscientiously carried on. They are producing a cleaner, more wholesome milk, and can undoubtedly not be encouraged too much, or praised too highly. However, it is difficult to understand how regulation and inspection, at least any that have so far been suggested, can do more than lessen the danger of infection from milk with typhoid, scarlet fever and diphtheria, unless pasturization or sterilization of the milk is also done. One of the common ways, it seems, in which milk is rendered infectious is by persons with mild attacks of one of the above diseases being engaged in milking or handling the milk. the attacks being in many cases so mild that they cause little inconvenience and their nature is not suspected. It would seem to be almost impossible to prevent such cases from being at times employed in dairies. Then, too, the chronic typhoid bacillus carrier is a factor that must be considered, and the less chronic, but possibly just as common, diphtheria bacillus carrier also. A chronic bacillus carrier was the supposed cause of a recent typhoid outbreak in Washington, D. C.

In America pediatricists have opposed pasteurization of milk fed to infants on the ground that it at times produced scurvy and rickets. The question would seem to resolve itself, therefore, into which was the

greatest danger, infection from raw milk, or scurvy and rickets from pasteurized or sterilized milk.

It would appear that feeding an infant on raw cows' milk was essentially making the cow a wet nurse for the child. Most mothers in selecting another woman to act as wet nurse for their children are very careful to select a nurse of known health and habits, but the wet nurse cow being usually at some distance is not given as careful consideration.

IRRIGATION OF THE UTERUS.

One age may offset the teachings of another age. This is constantly observed in medical science. Today we may hold fast to a certain therapeutic measure and tomorrow we discover its uselessness. If this were the whole truth of the matter, it would be a simple proposition. But, how often do we find a therapeutic measure that has come down to us from a less enlightened period, which proves not alone useless but positively harmful.

Intra-uterine irrigation as a therapeutic measure recommended a decade ago is harmful under conditions most frequently resorted to at the present day. It is mischievous to introduce an instrument into a uterus that has been invaded by micro-organisms. And yet such a practice is not an uncommon one to hear of where a uterine infection is suspected. When a therapeutic measure has once become established, even though it is one with harmful propensities, it is most difficult to dislodge it from general practice. A great deal of suffering, weeks of invalidism could be spared the patient, if uterine irrigation, as a therapeutic measure, would be abolished. Our armamentarium would not suffer as a result of this, because in the few conditions where intra-uterine irrctation is of service some other equally efficacious measure could be substituted.

The practice of intra-uterine irrigation has two objectionable features, the mechanical and the chemical. Forcible introduction of an instrument through a contracted cervical os brings about a traumatism which is very injurious, considering that these irrigations are done in the presence of an infection. The traumatism opens up new avenues for infection and absorption. Nor is the chemical feature of these irrigations of small moment. Strong chemical solutions are baneful in effect, and even many instances of poisoning from irrigating solutions are on record. Even mild antiseptic solutions, when long continued and often repeated, react unfavorably on tissues, especially on tissues already damaged by septic infections. When a post-partum

case develops a temperature, it is reprehensible to invade the uterus at once with a strong antiseptic. What is necessary in the face of such a proposition is a calm judgment, a searching examination and not a forceful instrumentation. If the accoucheur was surgically clean in his obstetric manipulation, no infection should have occurred, and if he was not cautious and an infection did occur, no amount of irrigation will remedy the mistake. The patient will resist the infection far better if the tissues are not further traumatized with instrumentation and injury inflicted with strong and irritating chemical antiseptics. In the light of our present knowledge of infections, supportive measures are far more effective than antiseptic applications. In a great many of these cases, the cause of the temperature can be discovered and many times an infection is not the underlying factor. In puerperal sepsis, no intra-uterine irrigation, but supportive measures, bacterial vaccines, serum therapy, and colargolum injections are indicated. With these judicious measures a very large number of the cases will recover, barring those that have low resistance and virulent infection. Intra-uterine irrigation in these cases is not alone useless but a positive menace.

TRI-STATE MEDICAL ASSOCIATION.

The Tri-State Medical Association, of Mississippi, Arkansas and Tennessee, held its annual meeting in Memphis, Tennessee, November 24th, 25th and 26th, the sessions being presided over by Dr. Eugene J. Johnson, of Memphis. The meeting was a most successful one, being largely attended by delegates from all three States. A splendid program had been arranged and was enthusiastically carried out. The second day was devoted chiefly to the reading of papers on and discussion of Tuberculosis. An interesting feature was the report by Drs. Robert Mitchell, Bryce Fontaine, and Marcus Haas, of Memphis, of a case of "Systematic Blastomycosis," a disease caused by a species of fungus resembling yeast and said to be the first report of a case of its kind in the South. Indeed it is one of a few cases known to have been studied by scientists.

Officers for the ensuing year were elected as follows:

President—Dr. William H. Deadrick, Marianna, Ark.

Vice-President for Arkansas—Dr. T. S. Hare, of Vincent.

Vice-President for Mississippi—Dr. S. W. Glass, of Dublin.

Vice-President for Tennessee—Dr. J. A. Porter, of Ripley.

Secretary—Eugene Rosamond, of Memphis.

Treasurer—Dr. J. A. Vaughn, of Memphis.

THE CHARLOTTE SANATORIUM COMPLETED.

No city in the whole South can boast of a hospital that is more complete in every respect than can Charlotte, now that the new Charlotte Sanatorium has been formally opened. This is the fifth institution for the care of the sick erected in this city; and, in appointments and finish, it is one of the chief ornaments of Charlotte. Thrown open for public inspection for the first time on Wednesday, Dec. 9th, it was visited by hundreds of the citizens of the town and surrounding community and the universal expressions of these prove that we can now boast of a hospital which is unsurpassed so far as equipment, furnishings and architectural features go. Modesty would restrain us from giving expression to such favorable emendations concerning its staffs as we naturally would consider fitting. Members of the profession, who were present by special invitation and in whose presence the owners felt particular gratification and pleasure, with one accord gave voice to most unstinted praise, many expressing the opinion that it is one of the finest hospitals in the whole country.

At a cost of \$125,000 there has been erected a strictly fire-proof structure of pressed brick, structural steel and reinforced concrete, three stories in height, with basement, sun-parlor and roof garden, making practically a five-story hospital. Being specially designed from the start for hospital service, it could not but be exceptionally well fitted for the use to which it will be put. The two stairways are of steel and marble and hence fire proof. The absolute-ness of the protection against fire has been one of the special features in the building's construction.

Accommodations for patients may be secured in wards, private rooms and rooms en suite, the second floor being entirely devoted to these, each of which have private bath attached and designed for those wishing the very best accommodations. All of these open on the outside and have an abundance of sunshine the year round. The private rooms are comfortable and well furnished. The ward rooms, one for men and one for women, are arranged for those who cannot afford a private room, or who prefer company.

All the conveniences looking to perfect service and comfort are the most modern which the mind of man has as yet devised. A system of telephones connect the patients with the outside world and one may recline

in bed and talk to distant friends—something that few people can do at home.

A department of which the Sanatorium is proud is that of hydro-therapeutics. Three large rooms have been set apart for the various baths, sprays and douches, and three smaller rooms for dressings, massages, etc. In this department can be given all kinds of packs, hot or cold, general or partial. Hydrotherapy will be applied in the most scientific manner, eliciting from it every benefit which science has been able to gain.

Besides the sun-parlors and roof garden there are reception rooms, doctors' reading and lounging rooms, where visiting doctors are invited to call. There is the surgical department to which one entire wing on the third floor is given, a suite of seven rooms being completely equipped for operative procedure. An electric automatic elevator runs from the basement to the roof.

Cases will be in charge of the following specialists: Practice of medicine, Dr. E. C. Register and Dr. J. P. Munroe; diseases of digestion, Dr. W. O. Nisbet; surgery, Dr. G. W. Pressly and Dr. C. M. Strong; eye, ear, nose and throat, Dr. E. R. Russell and Dr. A. M. Whisnaut; genito-urinary and rectal diseases, Dr. A. J. Crowell, Dr. W. D. Witherbee and Dr. J. C. Montgomery.

The price of rooms run from \$2.50 a day to \$6, with prescriptions, special medicines, special nursing, hydrotherapy and doctor's bills extra. Special nurses may easily be secured when necessary.

Mr. D. A. Tompkins is president of the Charlotte Sanatorium; Dr. E. C. Register is vice-president; Dr. W. D. Witherbee is secretary and treasurer; Miss E. Ethelyn Cherryman is superintendent; the members of the executive committee are: Drs. Register, W. O. Nisbet and A. M. Whisnaut; training school committee, Drs. J. P. Munroe, C. M. Strong and E. R. Russell; and the committee of publications is composed of Drs. G. W. Pressly, A. J. Crowell, W. D. Witherbee and J. C. Montgomery.

SOUTHERN MEDICAL ASSOCIATION.

The second annual meeting of the Southern Medical Association was held in Atlanta, Ga., Nov. 10-12, inclusive. This association, which is the Southern district branch of the American Medical Association, includes in its organization the States of Tennessee, Alabama, Georgia, Louisiana and Florida and its membership is composed of the best of the medical profession of these States.

At the first session Governor Hoke Smith, of Georgia, delivered an address of welcome.

Dr. J. C. Olmstead, of Atlanta, representing the physicians of the city, followed in

address of welcome on behalf of the medical men of the city. His address was attended with interest. He declared that as yet commercialism had not succeeded in controlling this white-robed profession as it had so many others. He outlined the work of the association in regard to its sections and the work to be undertaken by each.

Dr. G. C. Savage, of Nashville, Tenn., replied to the address of welcome in a happy vein.

President B. L. Wyman, of Birmingham, delivered his annual address in which he advised that the Southern Medical Association while continuing as a branch of the American Association should be in no way subservient to the parent body. The keynote of his address expressed his belief in the need for an independent medical association composed of Southern physicians, standing apart from the American Medical Association, and an independent medical journal to voice the sentiments of the Southern medical investigators.

He declared that tuberculosis was one of the most important subjects to be considered by the convention.

The training of feeble minded children was handled by Mrs. Nelson, of Murfreesboro, Tenn., who told of the results already accomplished at the school for such children at Murfreesboro.

The distinction and the attentiveness and enthusiasm extended Mrs. Nelson's explanation of what she is doing and proposes to do was significant of the importance ascribed to her accomplishment and her plans by this prominent body of medical men, whose work brings them often in contact with the conditions which call for just such a remedy as Mrs. Nelson's school is supplying.

Of this association Dr. B. L. Wyman, of Birmingham, was president, with the following officers:

Vice-presidents were Dr. W. P. McAdory, Birmingham, Ala.; Dr. H. M. Folkes, Biloxi, Miss.; Dr. Frank Watson, New Orleans, La.; Dr. G. R. Holden, Jacksonville, Fla.; Dr. Raymond Wallace, Chattanooga, Tenn.; Dr. A. L. Fowler, Atlanta, Ga.

Secretary-Treasurer—Dr. Oscar Dowling, Shreveport, La.

Councilors—Dr. George C. Savage, Nashville, Tenn.; Dr. D. F. Talley, Birmingham, Ala.; Dr. Michael Hoke, Atlanta, Ga.; Dr. John Mac Dairmid, De Land, Fla.; Dr. W. W. Crawford, Hattiesburg, Miss.; Dr. W. W. Butterworth, New Orleans, La.

Entertainment Committee—Dr. W. F. Westmoreland, chairman, Atlanta, Ga.

The sessions of the convention were held both at the Piedmont hotel and New Kimball, with special sessions in the amphi-

theatre of the Atlanta College of Physicians and Surgeons.

Except the three general sessions the meetings were held in sections, the association being divided into three, as follows. Surgery, Medicine and Ophthalmology. A very attractive programme was arranged and a large number of very valuable papers and highly interesting discussions were heard.

An elaborate reception at the Piedmont Driving Club, and a luncheon served at the Atlanta College of Physicians and Surgeons were among the delightful social features arranged for the entertainment of the visiting doctors.

Dr. H. F. Harris, of Atlanta, secretary of the State Board of Health, delivered the annual oration before the association. His subject was "Limitations of Laboratory Work," in which he gave many interesting incidents which came under his own observation.

Dr. E. G. Routzahn, of Dayton, Ohio, in charge of the traveling tuberculosis exhibit of the American Association for the Study and Treatment of Tuberculosis, was one of the speakers at the convention. He was listened to with the closest attention.

At the final general session the following officers were elected:

President, Dr. G. C. Savage, of Nashville; Vice-presidents, Dr. J. N. Jackson, Jr., Florida; Dr. Charles M. Murry, Mississippi; Dr. Geo. Dick, New Orleans; Dr. T. A. Casey, Alabama; Dr. J. C. Olmstead, Georgia; Secretary, Dr. Oscar Dowling, of Shreveport, La., (re-elected).

New Orleans was chosen as the next meeting place. At this last session a resolution was passed advising that all State and local medical societies work for the betterment of the public health through the preservation of forests and the purification of water supplies. This resolution touched particularly upon the contamination of streams and wells, and endorsed the Appalachian forest reserve project.

NORTH CAROLINA ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

No society in North Carolina has more self immolating aims or is inspired by such unselfish motives as is the association which with the title inscribed above will meet in Charlotte early in January of the ensuing year. The next annual meeting will be held in this city January 12 and 13, 1909. The active and efficient secretary, Dr. Chas. A. Julian, of Thomasville, is putting forth every effort towards making the meeting successful and profitable from every standpoint. He deserves the hearty co-operation

and unstinted assistance of every member of the medical profession and of every philanthropist of our State. It requires no small sacrifice of time and mental effort to carry on the work of an office such as his. We take pleasure in adding whatever aid these pages may be to him and so earnestly bespeak the good will and ready enthusiasm and zeal of his brethren. Charlotte has made quite a reputation as a city which most hospitably entertains her guests, and the great number of conventions of various societies and associations which have been held here speak eloquently enough of reasons why this meeting should also be a great success. There is every facility for proper entertainment of visitors, and the city is easy of access from all parts of the State. Dr. E. C. Register, chairman of the local committee of arrangements, would be glad to give information concerning arrangements for hotel accommodations. The railroads have granted special reduced rates.

We print herewith the provisional program as sent out by the secretary. This will of course be changed somewhat to suit the date and the session and other papers and addresses will be added. Those desiring to contribute voluntary papers should send in their title within the next few days.

PRELIMINARY PROGRAMME.

Addresses of welcome, Mayor T. S. Franklin and Dr. J. P. Munroe.

Responses to the addresses of welcome, Dr. J. Howell Way and Dr. David A. Stanton.

Address of the president, Dr. W. L. Dunn.

"The State Sanitarium for Tuberculosis," Dr. Richard H. Lewis, secretary North Carolina Board of Health.

"Tubercular Prophylaxis," Dr. I. W. Faison.

"The Importance of Store Sanitation in Its Relation to the Suppression of Tuberculosis in North Carolina," Dr. Charles L. Minor.

"The North Carolina State Sanitarium for the Treatment of Tuberculosis," Dr. J. E. Brooks.

"The Special Danger of Tuberculosis to a Special Class," Dr. J. Allisou Hodges.

"Government, State and Municipal Administrative Control of Tuberculosis," Dr. William M. Jones.

"Tuberculosis and the State," Dr. W. J. McAnally.

"Education, with Reference to Tuberculosis," Dr. John Roy Williams.

"House Infection," Dr. P. R. McFadyen.

"Relation of Hook-Worm Disease to Tuberculosis," Dr. J. M. Templeton.

"How Consumption Spreads and Why They Die," Dr. H. D. Stewart.

"Some Duties and Public Duties Relating to Consumption," Dr. M. Eugene Street.

"Genito-Urinary Tuberculosis—Report of Cases," Dr. A. J. Crowell.

Subject unannounced, Dr. James A. Burroughs.

Subject unannounced, Dr. Sylvio von Ruck.

"The Sanatorium Treatment of Tuberculosis," Dr. Lucius B. Morse.

"The Tuberculosis Problem from the Standpoint of the Country Patient and Country Physician," Dr. Charles E. Reed.

"The Instruction of School Children in North Carolina in the Hygiene of Tuberculosis and Other Infectious Diseases," Dr. L. B. McBrayer.

"History of and Efforts Against Tuberculosis," Dr. C. N. Peeler.

"Our Duty to the Tubercular Patient, the Family and the Public," Dr. David A. Stanton.

"The Relation of Tuberculosis to Life Insurance," Dr. Thomas R. Little.

"How Shall We, the Medical Profession, Best Educate the Masses to Prevent Tuberculosis," Dr. J. F. Highsmith.

Subject unannounced, Dr. S. Westry Battle, U. S. N.

"Is Tuberculosis Contagious?" Dr. L. W. Hunter.

"A Lecture with Illustrations—The Teaching of Hygiene, with Reference to Tuberculosis, in the Public School," Dr. Paul Paquin.

"The Crusade Against the Great White Plague," Dr. Charles A. Julian.

"The Minister's Opportunity in the Battle Against Tuberculosis," Rev. M. L. Kestler.

The officers and directors of the organization are as follows:

President, W. L. Dunn, M. D., Asheville; vice-president, John Roy Williams, M. D., Greensboro; secretary and treasurer, Chas. A. Julian, M. D., Thomasville.

Board of Directors—Chairman, Dr. M. L. Stevens, Asheville; Dr. Richard H. Lewis, Raleigh; Dr. James M. Parrott, Kinston; Dr. W. H. H. Cobb, Goldsboro; Dr. Albert Anderson, Raleigh; Dr. J. Howell Way, Waynesville; Dr. Charles A. Julian, Thomasville; Dr. George Gillett Thomas, Wilmington; Dr. James A. Burroughs, Asheville; Dr. Watson F. Rankin, Wake Forest; Dr. K. M. Ferguson, Southern Pines; Dr. C. M. Strong, Charlotte.

The most eminent authorities on the tuberculosis problem in this and other States will take part in the discussion,

Governor-elect W. W. Kitchin has been

invited to officially open the association. Dr. E. L. Trudeau, of Saranac Lake, New York, honorary president of the International Congress on Tuberculosis, which met in Washington, D. C., September 21st, has been invited, as has also Dr. Joseph Walsh, of Philadelphia, and Dr. Herman M. Biggs, general health officer of New York City.

Dr. Paul Paquin, of Asheville, will deliver an address at night and present the illustrations by means of a large projection lantern. The slides are being made in New York, taken from the work of exhibits from New York, Pennsylvania, Washington and France.

TYPHOID FEVER, AN ECONOMIC PROBLEM.

Abstract statistics, while they may be accurate, are too often looked upon merely as rows of figures; and indeed, without some degree of thought and comparison of relative facts, people are too apt not to realize their true meaning. But when they begin to consider the cost of sickness and to transform statistics into a matter to be expressed in financial values, a question of dollars and cents, then it begins to dawn upon people what illness means, and how expensive an epidemic of disease may be.

It is well worth while, says H. E. Jordan in the *Municipal Engineering Magazine*, to consider the cost of typhoid fever in order to get the importance of its prevention well fixed in mind. It is a recognized fact that the greater majority of those persons who die from this cause are between the ages of 20 and 35. Basing one's estimate upon the value of human life as given in insurance estimates, the average value in life capital that is thus destroyed is about \$5,000.

In the summer of 1907 there were studied in the Seventh and Ninth wards of Pittsburgh 194 cases, with especial reference to the actual cost in money expended. These cases occurred in 146 families; from them there were eleven deaths; eighty-seven wage-earners lost 864 weeks' work; caretakers (not professional nurses, but members of the family) lost 182 weeks' work; there were thirteen of the cases treated in hospitals; total cost, in these three factors alone, of \$24,300. This, being proportioned among the 194 cases, amounts to \$125 per case, or \$2,200 per death. It is without question that the cost more nearly approximates \$2,500 per typhoid death on account of the inability of the patient to resume work at his normal rate. This makes a total cost per death of \$7,500. There is, then, with the sole question of the money cost in mind, a very deep problem for solution before this one cause of destruction of human life is eliminated.

In this connection it is worth while to

note the interest taken by the medical department of the United States Army in the experiments made in England and Germany in protective measures against typhoid fever. Captain F. F. Russell, of the medical corps of the army, on duty in Washington, was sent to those countries to learn all that had been accomplished in that direction.

He was shown the greatest courtesy and attention, and his work was facilitated to the utmost by the British and German military and medical authorities. His report, which is exhaustive, and is accompanied by full statistics, is now under consideration, and it is hoped valuable aid in the prevention of typhoid fever will be obtained from it.

Naturally if means are found to prevent the disease in the army, the same measures may be modified and applied in sanitary problems generally. It is well to countenance and encourage anything which gives even a glimmer of promise of success in the fight against deadly diseases like typhoid fever.

MORTALITY IN THE SOUTH.

Within the past few weeks the papers of North Carolina, and indeed of other Southern States, have had much to say concerning the work of the Country Life Commission which has devoted no little time to the study of health conditions which exist among our people. It may be said broadly that in the majority of instances the tone of these articles, both editorial and personal, has been more or less condemnatory of this commission. They have doubtless given voice to the popular attitude which almost universally springs up against any attempt to show that a people are not doing all that might be done towards eliminating conditions which are inimical to the general welfare. The plea has been made that things are no worse here than elsewhere in our great country, that people are just as happy and as healthy, that disease is as little rampant, and that our sanitary surroundings are quite as good as can be found elsewhere in this land of liberty of ours. But the facts may as well be faced impartially and coolly, and we are glad to note that not all the press of our State and country have chosen to turn their faces away from the truth and disregard the true welfare of our people simply because they have been blinded by the belief that perhaps these conditions are merely the product of fancy and that, even granting they do exist, it can do us no good to be told of them or to have the facts published abroad. Among those papers which have given expression to saner views along these lines we would mention the *Progressive Farmer* from which we quote at length. It

says that the seriousness of the South's high death rate cannot be over estimated. The average white death rate in America is 17.9 per 1,000 population; in the South it is 23.5 per 1,000 white population; 30.5 per 1,000 colored population for the country generally and 37.5 per 1,000 among the negroes of the South.

According to these figures if you are a white man living under ordinary American conditions and sanitary regulations, there are only 18 chances in a thousand that you will die within a year, but if you are living in the South there are 23 chances. For a negro in the country generally there are 30 chances in a thousand of his dying within a year; in the South 37 chances.

Herewith is presented tabulated figures showing the death rate by States in the South per 1,000 population:

	Total	White	Colored
United States.....	18.6	17.9	30.5
North Carolina.....	28.4	21.1	33.9
South Carolina.....	37.5	25.6	46.4
Georgia	30.4	23.9	37.5
Virginia.....	27.5	21.3	36.0
Mississippi.....	59.7	27.2	48.8
Florida.....	29.0	25.6	31.5
Tennessee.....	25.3	20.8	32.8
Louisiana.....	37.2	28.2	49.5

These statistics are for cities, it is true; but the comparison with other sections is also for cities. And beyond all that the most far-reaching investigations by the government in a great number of States where both rural and urban death statistics have been collected show that there is less than 1 per cent. difference between the death rates of city and town. The stricter sanitary regulations and the greater availability of medical help in our American cities practically counterbalance the country's advantages in fresher air and the simpler life.

The deduction from all this, in fact, the unescapable conclusion is that the death rate in the South is from 15 to 35 per cent. higher than in the country at large. And we repeat, that this is not the effect of our climate. It is the effect of improper sanitation; it is a proof of Dr. Stiles' statement that wherever the negro population is large his disregard of sanitary laws takes heavy toll upon the lives of the white women and children of the South, these classes, being peculiarly susceptible to the diseases which the negro spreads and which the little less reckless disregard of sanitary laws by a large part of our white people does hardly less to foster.

Now the practical and important question for us, is whether or not we are going to

face the tragic truths we cannot deny and put in operation—either by State government or by State and national governments combined—an organized effort to lessen our exceedingly high death rate, our hope and our good fortune being that it is mainly due to three preventable troubles: (1) The hookworm diseases, (2) malaria, and (3) typhoid fever. We have jested long enough about the hookworm disease. It is like jesting with death. The stern reality of the matter is now recognized by every medical institution in the United States, and the statements of Dr. Stiles are also the statements of Secretary Lewis of the North Carolina Board of Health, Secretary Williams of the South Carolina Board of Health, and Secretary Harris of the Georgia Board of Health. And Dr. Stiles has spent most of his life in the South and has given a hundred more times study to health conditions here than any man who has yet questioned one of his statements.

There is nothing to be accomplished by concealment of the fact that from a sanitary standpoint there is much to be done to bring the South abreast of the times. However disagreeable it may be, we have got to recognize it and meet it and go about applying the remedy. The work involved has become not only a question of humanity, but one of self-protection. The South must wake up to the presence of these undesirable and dangerous conditions and set about the work of correction. There is, just now, no more serious phase of the race question than that which involves proper sanitation, or the lack of it. It does not need to be proven that the more dirt and filth men tolerate, the more they weaken and die. It is rather to be admitted and shown that these conditions do exist among our people to a greater degree than should be allowed, and that their fatal consequences are too terribly evident.

Editorial News Items.

Vance County, N. C. Physicians Entertained by Dr. Tucker.

Dr. John Hill Tucker, of Henderson, N. C., entertained the members of the Vance county medical profession, Nov. 13th. The occasion was one of pleasure and equally enjoyed by host and guests.

The members of the profession present were: Drs. R. J. Gill, H. H. Bass, P. R. Harris, A. S. Pendleton, F. C. Fenner; Benjamin Allen, Henderson; G. A. Coggs, Oxford; McAllister, Middlesburg; W. A. Carstophin, Kittrell.

The Mecklenburg County Medical Society.

The Mecklenburg Medical Society met at 3 o'clock, December 1st, at the city hall Charlotte, for the purpose of holding the annual election of officers. This was accomplished by the selection of the following: Dr. Annie Alexander, president; Dr. E. R. Russell, first vice-president; Dr. L. B. Newell, second vice-president; Dr. S. M. Henderson, third vice-president. Dr. Rob't Lafferty was re-elected secretary and treasurer. Dr. Misenheimer was the retiring president.

Dr. C. N. Peeler read an interesting paper on "The Prevention of Tuberculosis," the question of the day, and urged the pushing forward of a campaign of popular education on this subject.

Branch of Red Cross Society at Wilmington, N. C.

A local branch of the Red Cross Society has been formed in Wilmington, N. C., the second in the State, with Mrs. Walter L. Parsley, president; Miss Lillie Brown, vice president; Mrs. Cuthbert Martin, secretary, Mrs. Allan Nichols, treasurer, Miss Serena Chadbourn, Miss Hettie James, Miss Belle Thomas and Miss Carrie Price, members of the executive committee. The Red Cross stamp plan of raising funds to carry on the war on tuberculosis will be taken advantage of in this city and quite a large number of merchants has been induced to use them on their letters and packages as recommended by the national organization for the month of December.

Florida Medical Examiners.

The regular fall session of the Florida State Board of Medical Examiners was held Nov. 12th, at which time all physicians in the State were given an opportunity to comply with the law and obtain licenses to practice. There were sixty-six young men, and one young lady, who took the examination.

The session of the board of examination was held in the board of trade auditorium. The results of the examinations are announced below.

The session consumed the best part of the morning and afternoon. The morning was devoted to the subject of Anatomy and Gynecology, while Chemistry and Therapeutics took up the afternoon. A feature of the afternoon's program was an address by Dr. Hiram Byrd, on The Hook Worm.

The board is constituted of the following prominent Florida physicians and surgeons: Dr. H. E. Palmer, president, Tallahassee; Dr. J. B. Fernandez, secretary, Jacksonville; Dr. J. Harris Pierpont, Pensacola;

Dr. A. L. Blalock, Madison; Dr. J. Harrison Hodges, Gainesville; Dr. R. L. Harris, Jacksonville, and Dr. J. H. Fogarty, Key West.

THOSE WHO TOOK EXAMINATION.

Those who took examination were: Jas. W. Davidson, Reddick; J. R. McMichael, Perry; W. B. Sawyer, West Palm Beach; P. P. Pilians, Middleburg; S. E. Johnson, Tampa; J. J. Hartley, Baldwin; M. B. Herlong, Jacksonville; C. D. Hulbert, Gainesville; R. E. Stoker, Bayard; C. G. Roether, Jacksonville; O. O. Enzer, Laurel Hill; William T. DeVane, Mascotte; David Rose, Sebastian; L. W. Birdsong, Atlanta; C. C. Kilpatrick, Pine Barren; S. S. Bridges, Weston, Ga.; W. Marion Bevis, Cottondale; J. L. Gaskins, Starke; L. B. Mitchell, Tampa; R. L. Smith, Aripeka; W. J. Cole, Miami; Harvy Byrd, Atlanta; Gaston Day, Jacksonville; R. A. Schlenitzer, Jacksonville; Wis.; Elsie M. Martinson, Tampa; F. A. Murray, Raleigh; D. W. Harris, Floral City; Neil Alford, Asheville; M. Mason Smith, J. E. Goethe, Milton; Green L. Johnson, Harrisburg, Ky.; Greenman Dolly, Philadelphia; R. E. Thayer, Jacksonville; J. O. Trovillion, Harrisburg, Ill.; R. E. Walker, DeLand; C. C. Pearce, Waldo; H. A. Ives, Lake City; T. C. McGuire, Ocoee; C. H. Cooper, Dothan, Ala.; E. W. Jenkins, Blountstown; J. H. Hatuman, Jacksonville; S. P. Ladd, Mossup, Conn.; W. C. Vickers, Abbeville, S. C.; H. S. Cherry, Dothan, Ala.; S. E. Clenard, Sopchoppy; W. T. Bronson, Bellevue; B. A. Chapman, Dowling Park; James W. Shaul, Olean, N. Y.; Dallas H. Adams, Glendale; S. W. Lewis, Baton Rouge, La.; Lois F. Dorkee, Fort Pierce; H. E. Parnell, Fort White; H. Curkle, Hernando; O. B. Tiner, Vernon; B. L. Padgett, Hastings; James N. Robson, Jr., Lake Butler; O. B. Burnett, Crawfordsville; John D. Gable, Bonifay; J. A. Harper, Crawfordsville; Gillman J. Winthrop, Mobile; S. R. Weeks, Trenton, N. J.; W. Small, Mulberry; Edward F. Carter, Phosporia; William J. Creel, Bayard.

St. Mary's Hospital, Athens, Ga.

St. Mary's Hospital, the private sanatorium of Drs. Fullilove and Proctor, located at Athens, Ga., was formally opened Oct. 11th. This hospital is designated for the treatment of medical, surgical, obstetrical and gynecological cases and thus supplies a long felt want in Athens and surrounding territory. Accommodations have been provided for fifteen white and six colored patients. The building has been fitted with steam heat, gas and electricity, and made thoroughly comfortable in every way. An up-to-date operating room is provided with

every facility for the proper performance of surgical procedures.

Special attention is paid to the training school for nurses. This branch of the institution is under the special management of a skilled graduate nurse. Pupil nurses are admitted on a probation period of two months only after a thorough investigation as to their moral, mental and physical fitness for the profession. The course of instruction is in both theoretical and practical work.

The rates for hospital service range from \$10.00 to \$25.00 per week, depending upon the class of service desired. Should the patient be so ill as to require the entire attention of a nurse, this will be furnished for an additional charge of \$10.00 per week.

In surgical cases, a fee of \$5.00 is charged for the use of the operating room, this being the average cost of preparation for major operations; and if the patient is ill enough to require the use of the ambulance this is furnished for a fee of \$5.00.

Professional charges are governed by the nature of the case.

Nurses are sent out to do private nursing for \$20.00 per week and expenses.

For further information address Drs. Fullilove & Proctor, Athens, Ga.

Dr. J. W. Kerr, assistant surgeon general, United States Public Health and Marine Hospital Service, Washington, attending the sessions of the municipal convention recently held in Charlotte, delivered during his visit to the city, a most instructive and interesting address before the third and fourth year men of the North Carolina Medical College.

Tuberculosis Congress in S. C.

A plan is on foot to hold a State-wide anti-tuberculosis congress at Sumter in the near future. This congress will be under the direction of the State Medical association, and the health officers of every town and city in the State of South Carolina will be invited to be present, as will be representatives of the numerous ladies' auxiliary associations, such as civic leagues, and different anti-tuberculosis associations of this State.

A very interesting preliminary conference was held in Columbia recently. Several matters of great importance were discussed, one being a proposed law to regulate sending of laundry to washer women who have tuberculosis, and another relating to the use of drinking vessels on trains.

Dr. Dawson, of Charleston, in opening

the meeting, suggested the adoption of the following articles:

1. The association appoint a standing committee, consisting of one member from each county society, to be known as "The Committee of the South Carolina Medical Association for the Study and Prevention of Tuberculosis."

2. That each member of said committee be instructed and empowered to organize in his county an anti-tuberculosis association, of which he shall be the head, and which will consist of a membership of laymen and physicians, to aid and co-operate with him in the fight against tuberculosis.

3. That it shall be the aim and object of these county associations to instruct the public as to the methods of conveyance of tuberculosis, its prevention and cure.

4. That the aid of civic clubs be invoked and that the poorer classes be visited and instructed at their homes when possible.

5. That this committee meet annually on the day before the meeting of the State association, at such place as the association has chosen for its meeting, and that each member report at this meeting the progress of the work done by this county association (a list of members, numbers of cases instructed, help by clubs, methods employed, etc., etc.).

6. That all reports be tabulated and put into form and be presented to the State association officially, at its annual meeting each year.

The Louisiana Anti-Tuberculosis League

At a recent meeting of the Louisiana Anti-Tuberculosis League in the board-room of the Free Clinic in Tulane avenue, considerable routine business was transacted and the following nominating committee was elected: Dr. A. B. Brown, chairman; Miss Kate Gordon, Dr. Sara Mayo, Dr. G. F. Patton and Dr. Otto Jochin.

This committee met immediately and selected the following officers for the league: Dr. E. L. McGehee, president; Miss Eleanor McMain, first vice-president; Miss Kate Gordon, second vice-president; Dr. J. Geo. Dempsey, secretary, and Dr. George S. Brown, treasurer.

The visiting delegates of the Southern Medical Association, which met in Atlanta, Ga., November 10-12, were given a very beautiful reception on Wednesday evening, November 11th, at the Piedmont Driving Club by the local physicians of Atlanta. The guests were received by Dr. Willis Westmoreland, chairman of the reception committee, and a large number of prominent citizens. The decorations were very elaborate, palms, ferns, southern smilax

and cut flowers being used in profusion in the diningroom and ballroom. After the informal reception supper was served at small tables which had been arranged in all rooms of the club house.

Epidemic of Typhoid in Winthrop College, S. C.

Because of an epidemic of typhoid fever at Winthrop college, a State institution for women at Rock Hill, the State board of health and the trustees of the college have had several conferences, and many of the students have left the college for their homes.

Third District Medical Society of Georgia

This society met in Montezuma November 18th.

This association organized at Americus less than two years ago, has already doubled its membership. This is mainly due to the efforts of the secretary, Dr. R. H. Stovall, of Vienna, and of the president, Dr. T. A. McArthur, of Cordele.

Several papers of scientific interest and value were read by physicians throughout the district, and the morning and afternoon sessions were devoted to the reading and discussion of these papers.

The committee on social arrangements, composed of Drs. C. H. Richardson, chairman, F. M. Mullino and S. B. Liggin, made thorough preparations for the entertainment of the visiting members of the profession.

The officers of the association are: President, Dr. T. G. McArthur, Cordele; vice-president, Dr. S. M. Brown, Fort Valley; secretary-treasurer, Dr. R. H. Stovall, Vienna.

Ware County (Georgia) Medical Society.

At the annual meeting of the Ware County Medical Society, officers for the ensuing year were elected as follows: Dr. R. P. Izlar, president; Dr. A. Fleming, secretary and treasurer. In December the society will give a banquet, to which some of the leading physicians of Georgia will be invited.

Dr. Tucker of Richmond, Va.

Dr. Beverly R. Tucker of Richmond, is in San Francisco, where he went at the invitation of the Cooper Medical College, to deliver a course of lectures at that institution.

The invitation to Dr. Tucker to lecture in a college of such high standing is regarded as a decided compliment, and his friends are very proud of it.

Scarlet Fever in Bristol, Va.

Scarlet fever is causing serious trouble in the Bristol, Va., public schools. On account of the development of so many cases, the pupils within the radius of several blocks are prohibited from attending.

The South Piedmont Medical Society of Virginia, met in Danville, Va., Nov. 17th, with a good sized attendance. The opening session was presided over by Dr. G. W. Cocke, in place of the president, Dr. H. B. Melvin, of Houston. Many interesting papers were read, the principal topic under discussion being tuberculosis. A public address was delivered on this disease by Dr. Freeman, of Richmond, the address being illustrated with stereopticon views.

Dr. B. B. Smith.

Dr. B. B. Smith, of Richfield, N. C., announces that he will return to Mecklenburg shortly to resume practice.

House Surgeon of Nashville Hospital Under Charges.

Dr. E. E. Reismen, house surgeon at the city hospital, was before the board of public works at Nashville, Tenn., Nov. 6th, to answer charges growing out of the accidental poisoning of a negress, Addie Crockett, a pay patient at the hospital, and the alleged suppression of the facts from her doctor, Dr. M. C. McGannon.

Dr. Reismen disclaims responsibility in any way for the poisoning, and denies ordering the interne not to tell Dr. McGannon of the accident.

High Point Medical Society.

The High Point Academy of Medicine held a very interesting meeting Dec. 2, in the rooms of the chamber of commerce. A paper of much importance on Tuberculosis, was discussed.

The new officers elected are: President, Dr. J. T. Burrus; vice-president, Dr. C. E. Reitzel; secretary and treasurer, Dr. G. F. Duncan.

Petersburg, Va. Medical Society.

The annual meeting of the Petersburg Medical Faculty was held Nov. 21, and officers for the ensuing year were elected, as follows:

President, Dr. J. Gordon Rennie; First vice-president, Dr. H. A. Burke; corresponding secretary, Dr. J. R. Beckwith; secretary and treasurer, Dr. L. S. Early; Court Medicale, Drs. W. H. Crockford, Frank H. Hains, W. E. Harwood and E. J. Nixon, Paper Committee, Drs. R. A. Martin, E. L. McGill and W. C. Powell; Supper Commit-

tee, Drs. H. G. Leigh, John Mann and J. M. Burke.

After the business meeting the doctors partook of the annual supper at the Chesterfield hotel.

Seaboard Medical Association.

The Seaboard Medical Association of Virginia and North Carolina convened in Washington, N. C., on Dec. 1st, for a three days' session. This organization has among its members some of the most famous in the profession, both in Virginia and North Carolina. This will be its fourteenth annual session. The association alternates annually between Virginia and North Carolina as a meeting place, and this time it fell to North Carolina.

Dr. John Overton.

Dr. John Overton, of Nashville, Tenn., has been elected house surgeon of the city hospital of that city, to fill the vacancy caused by the resignation of Dr. Reismen.

Columbia S. C., Board of Health.

An ordinance has been passed by the Council of the City of Columbia, S. C., whereby the Board of Health, which hitherto has been composed of fifteen members, shall be cut down to five. It is said that most of the business of the board has in the past been conducted by the executive committee of the board, there seldom being more than five members present. The new ordinance provides that "one or more" of the members shall be reputable physicians of the city.

Gastonia, N. C., City Hospital.

The City Hospital opened Nov. 14. This institution fills a "long felt" need in Gastonia, and the prospects for its success are bright. Miss Nancy Sloan of Belmont, and Miss Mary Parks, of Hopewell, are the nurses in charge. The hospital is quartered in a large, new and well-equipped building on Air Line street in the centre almost of town.

Banquet by Gastonia Medical Society.

A most delightful occasion was a banquet given Thursday night, Nov. 14, at the Falls House by the Gastonia, N. C. Medical Society. In the afternoon a business session was held at the city hall at which time Dr. I. W. Faison, of Charlotte, lectured to the physicians of Gaston county on "The Proper Care and Feed of Infants." The banquet was from 8:30 to 11 and it was a most delightful affair. Dr. D. A. Garrison, of Bessemer City, was toast-master and a number of physicians, including

Dr. Faison and Dr. S. M. Crowell, of Charlotte, responded.

Sixth District Medical Association, of Georgia.

The Sixth District Medical Association met in their quarterly convention at the city council chamber in Macon, Nov. 10. Dr. R. B. Barron, president and Dr. Eugene B. Elder, secretary, both of Macon, arranged a most excellent program.

The program carried out was as follows:

Meeting called to order by the president Dr. R. B. Barron, Macon, Ga.

Meeting opened by Rev. T. D. Ellis, Macon, Ga.

Address of Welcome—Dr. K. P. Moore, Macon, Ga.

Response to Welcome—Dr. J. R. Shannon, Cabaniss, Ga.

Papers read—1. "Diphtheria and Its Treatment," Dr. A. H. Black, Thomaston, Ga.

2. "Observations Concerning Dear-Mutism with Clinic," Dr. M. M. Stapler, Macon, Ga.

3. "Resection of Ribs for Shotgun Wounds of Right Lung," Dr. J. A. Combs, Locust Grove, Ga.

4. "Reports of Obstetrical Cases" Dr. John R. Shannon, Cabaniss, Ga.

5. "The Doctor, His Relation to Public Sanitation," Dr. J. C. Beauchamp, Williamson, Ga.

6. "Mastoiditis," Dr. F. M. Cunningham, Macon, Ga.

7. "Some Remarks on the Pharmacopœia and National Formulary," Dr. M. A. Clark, Macon, Ga.

8. "Chronic Gastritis," Dr. A. F. White, Flovilla, Ga.

9. "Hypodermoclysis in Treatment of Traumatic Shock," Dr. W. C. Pumpelly, Macon, Ga.

10. "Herpes Progenitalis," Dr. F. L. Webb, Macon, Ga.

11. "The After-Treatment of Adenoids," Dr. J. H. Shorter, Macon, Ga.

12. "Report of Cases," Dr. H. J. Williams, Macon, Ga.

Marriages.

Dr. Jos. W. Johnson.—One of the prettiest weddings of the season was that of Miss Nell Evans and Dr. Jos. W. Johnson, both of Chattanooga, Tenn., which took place at the home of the bride's parents on Nov. 22nd. Dr. Johnson is a very prominent physician of Chattanooga. He is a graduate of the medical department of Tulane University, New Orleans, La., and in 1900-1901 attended lectures in Vienna, Austria.

Dr. Wm. Minor Brown.—On November 6th, Dr. William Minor Brown of New Orleans, La., was married to Miss Henrietta Kemp White, at the home of the bride's parents, Judge and Mrs. John M. White, of Charlottesville, Va. A reception followed the ceremony, after which Dr. and Mrs. Brown left for an extended bridal tour.

Dr. Brown is a graduate of the Medical School of the University of Virginia, and is now in the United States Marine Hospital service. He is at present stationed at New Orleans.

Dr. J. Festus Hardin.—On November 17th, Dr. J. Festus Hardin was married to Miss Mamie Hays, at the home of the bride, about twenty miles from Tuscaloosa, Ala. Dr. Hardin is a very promising young physician of Tuscaloosa.

Dr. J. Douglass Nesbitt, of New York City, was married in November to Miss Beulah Haynes, of Lewisburg, Pa. Dr. Nesbitt is a native of South Carolina, having been reared in Lancaster, where he resided until a few years ago, when he moved to New York City, where he has made his home. He graduated from the Louisville Medical College, Louisville, Ky., class 1886. He is a brother of Dr. W. O. Nesbitt, of Charlotte, N. C., at whose home he and his bride visited while on their wedding tour in the South.

Dr. Le Roy Stowe, of the United States Public Health and Marine Hospital Service, stationed at Tampico, Mexico, was married in New Orleans, November 19th, to Miss Gertrude Girbal, a beautiful Spanish-American young lady and a native of Honduras, whose parents now reside in New Orleans. Dr. Stowe is a native of Texas and a graduate of the Medical Department of Tulane University, class 1906.

Deaths.

Dr. J. H. Purefoy.—On November 22nd, Dr. J. H. Purefoy, of Furman, Ala., died at his home, after an illness of about a week. He had been a sufferer for years of Bright's disease and heart affection, and on the 17th, of November, was seized with a stroke of paralysis, from which he never recovered.

Dr. Purefoy was a graduate of Jefferson Medical College, Philadelphia, Pa., class 1859. He practiced his profession for a number of years but retired a few years ago on account of ill health.

Dr. L. S. McCollum.—Dr. L. S. McCollum, of Birmingham, Ala., died at St. Vin-

cent's Hospital, that city, on November 25th, after several weeks illness with blood poisoning.

Dr. McCollum was 26 years of age, and a young physician of great promise. He was a graduate of the Mobile Medical College in pharmacy, and of the Baltimore Medical College in medicine. He was born at Marion Junction, Ala.

Dr. Thos. Marion Winfree of Drewry's Bluff, Va., died on the 28th of November, in the sixty-second year of his age. He was a very prominent physician of Chesterfield county.

Dr. Robert E. Smith.—The citizens of Greenville, Ala., were shocked to learn of the sudden death of Dr. Robert E. Smith, which occurred on November 17th, at his home in that city. Heart failure was the immediate cause of death. He had been in feeble health for some time. He was a very prominent physician. Dr. Smith was a graduate of the Medical Department of the University of Alabama, class 1882.

Dr. Casper C. Henkel, aged 74 years, died at his home in New Market, Va., on November 16th, of diabetes, after an illness of two months. He was a graduate of the Medical Department of the University of Pennsylvania, Philadelphia, class 1859.

Dr. Henkel was one of the most prominent physicians and surgeons in Shenandoah county. At the close of the Civil War he was acting division surgeon of the celebrated Stonewall Brigade and was a member of the Board of Medical Examiners for Jackson's corps. He engaged in twenty-nine battles—all the battles in which the army of Northern Virginia was engaged from McDowell to Appomattox. At the battle of Gaines' Mill, of five surgeons who entered the engagement with the brigade, three were wounded and one killed, Dr. Henkel alone escaping injury. After the surrender he resumed his practice in New Market, and continued the same until incapacitated by illness, a few months ago. His death is a very great loss to the State of Virginia.

Dr. O. D. King.—The death of Dr. O. D. King, of Albemarle, N. C., which occurred at his home on the morning of November 16th, was profoundly regretted by all who knew him. He was a graduate of Long Island College Hospital, Brooklyn, N. Y., class 1884. He was a native of Wilmington.

Dr. F. S. Harris.—After an illness of two weeks with pneumonia Dr. Frank Summer-

field Harris, of Henderson, N. C., died at his home on November 17th. Dr. Harris was a native of North Carolina, having been reared in Granville county, near Stovall. He moved to Henderson a number of years ago where he practiced his profession. He was 56 years of age.

Dr. J. L. Laxton, of Morganton, N. C., died on the 11th of November, at his home, aged 73, years. He had been suffering for some time with acute indigestion, which was the immediate cause of his death. Dr. Laxton was a graduate of the Washington University School of Medicine, Baltimore, Md., class 1868. He was a Confederate veteran and lost his right leg in the service of his country. He was for many years a prominent physician and highly respected citizen of his country.

Dr. Paul Kirkpatrick.—Dr. Paul Kirkpatrick, of Jonesboro, Tenn., died in Mexico, Nov. 11, where he had gone for the benefit of his health. His death resulted from tuberculosis, from which he had been a sufferer for many months. His body was brought to Jonesboro for burial. Dr. Kirkpatrick is survived by his wife.

Dr. Jacob C. Arant died at his home about five miles from Elloree, S. C., on November 8th, after an illness of several weeks. He was 74 years of age and had practiced medicine in South Carolina for a number of years.

Dr. J. Edward Tompkins.—The citizens of Fredericksburg, Va., were shocked to learn of the death of Dr. J. Edward Tompkins, of that city, which occurred in Baltimore, on the 19th of November, at Johns Hopkins Hospital, from an operation. He had been in bad health for some time and went to Baltimore for treatment a few weeks ago. Dr. Tompkins graduated in 1891 from the University of Maryland School of Medicine. For a number of years he has practiced his profession in Fredericksburg, where he won the esteem of all who knew him, and his loss will be greatly felt in that community.

Dr. Davies Coxe.—A cable message was received in Huntsville, Ala., on Nov. 10th, of the death of Dr. Davies Coxe, which occurred while he was touring Europe. Dr. Coxe was formerly of Huntsville, Ala., but later lived in New York City. He was a graduate of the University of Virginia, class 1884.

Dr. Jos. Alston James, a very prominent physician of South Carolina, and for the last twenty years a resident of Cheraw,

S. C., died on the 10th of November. He was about seventy-five years of age. Dr. James was a native of Sumter county, S. C., but his father and mother later moved to Alabama where he spent his early youth. He studied medicine at Tulane University, New Orleans, La., and later finished his course in the Charleston Medical College. He practiced his profession for about fifty years.

Dr. J. C. Beckham, of Zebulon, Ga., died on the 1st of November, in Atlanta, Ga. His remains were carried to Zebulon for interment the following day. He was one of the oldest citizens of that community, being 88 years of age. He had practiced medicine there for a number of years.

Dr. R. N. Hewitt died suddenly at his home near Lynch Station, Va., on November 10th, aged eighty-four years. He had practiced medicine for about sixty-four years and was greatly beloved by the entire community.

Review of Southern Medical Literature

New Orleans Medical and Surgical Journal,
October, 1908.

Notes on Intestinal Myiasis.—Dr. Wm. H. Deaderick believes that among the species of this order of insects whose larvae occur in man as pseudo-parasites, there are two modes of reproduction, the oviparous and the viviparous. The former is the more frequent among the species in question, but the latter is usual among the Sarcophagids especially. In the oviparous diptera the egg stage is usually only a few hours, commonly eight.

The following are the most common species giving rise to intestinal myiasis in this climate:

Musca domestica, the common house fly, deposits its eggs on horse manure, occasionally on that of the cow or even in human feces, rarely on decaying animal or vegetable matter.

Musca vomitoria, the blue bottle meat fly, deposits its ova by preference upon decaying animal matter.

Anthomyia canicularis, the little house fly, deposits its ova upon decaying vegetable matter.

Sarcophaga carnaria, the green fresh fly, larvae placed on decomposing animal matter, possibly also upon human feces.

Piophilha casei, the cheese fly, deposits its ova upon cheese or upon human feces.

The physician who is known to be interested in intestinal parasites will be con-

fronted with numerous specimens, some of which he may promptly pronounce humbugs, intentional or otherwise.

For the positive diagnosis of intestinal myiasis there are two points necessary to be determined: first, that the larvae appear in the feces when the latter are passed; secondly, that the possibility of access of larviparous flies be rigidly excluded.

The symptoms common to this disorder are abdominal pains, nausea and diarrhea, or dysentery, though migraine, neuralgia, hysterical symptoms and even epilepsy have been recorded.

The treatment, which is nearly always successful, is castor oil, alone, or given with santalini. The oil should be given on an empty stomach, in one dose, for three successive days.

Moral Aspect of Race Suicide and Criminal Abortion.—Rev. Albert Biever says if once you grant that grave reasons justify abortion, you will find it difficult to draw the line. Today the doctor is called to a mother who in your opinion will die if you do not bring on a miscarriage. The next day you are visited by a most respectable lady who has been unfaithful to her marriage vow. The consequences of her fall are becoming evident, and if her husband finds out her condition, he will wreak a terrible vengeance. The third day comes a young lady, the joy and happiness of her parents, who in an evil hour was led astray and is now with child. If a doctor has destroyed fetal life on occasions when he deemed it legitimate practice, will he have the courage to resist on all occasions. Though I know that abortion artificially induced to save the mother's child is accepted as legitimate by medical men, I cannot but hope that the time will not be far off when your exalted profession will adopt those sound and wise moral principles that protect the unborn child and not unfrequently give a fairer chance to the mother.

The Southern Practitioner, October, 1908.

When to Amputate the Injured.—Dr. Edw. De Moss points out that with reaction from shock the patient loses his dull apathetic appearance, may ask questions as to his condition, the cold perspiration disappears, the respiration becomes fuller, deeper and more regular, the pulse gains in volume and may decrease in rapidity, slight color comes to the cheek and lips, the eyes are less sunken and the face is not so pinched, he may show some restlessness and a desire to change his position; with a steady progress along these lines, the temperature gets above the normal, the pulse becomes full and strong, a flush comes to the cheeks,

restlessness is increased, pain becomes more manifest, and reaction is fully established.

In some injuries the irritation may be so great that reaction may be greatly delayed or even prevented, or the patient may oscillate between a slight degree of reaction and an aggravation of the condition of shock.

Summary.—Recently injured limbs demanding primary amputation can be divided into two groups. 1. Those whose general condition is good, the symptoms of shock slight, and in whom the loss of blood has been limited. Amputation may be done in such cases in two, three or four hours after injury.

2. Cases severely shocked belong to the second group, and if the efforts to bring about reaction are futile, the operation will be fatal. However, if reaction begins to develop, it may improve and become complete or satisfactory under anesthesia by ether and a reasonable rapid amputation. Fowler says that "amputation should be performed as soon as the patient reacts sufficiently from the shock to bear the anesthetic." In my observation, if reaction has commenced in severe injuries, it will increase under ether.

The Southern Clinic, October, 1908.

Indigestion.—Dr. W. F. Waugh says that in chronic indigestions he used to give the aqueous tincture of rhubarb with very good results, but modern palates refuse the nauseous dose. Rhubarb is one of the failures of the alkaloidists, since no active principle as yet has been extracted that will do the good work of rhubarb itself. It is not unpleasant in the aromatic syrup, but the sugar is objectionable. He has recently devised a method of using rhubarb, and curing indigestions, that meets every indication except as to palatability, and the relief is so great that as yet no patient has refused the treatment. Take a "finger" of rhubarb root, soak into it 15 drops of the best fluid extract of hydrastis, Squibb's preferred, and five drops oil of cassia. Let the patient take a piece the size of a coffee bean, and hold it in the mouth until all taste has been extracted, swallowing the saliva. Repeat this once or oftener each day, according to the effect on the bowels.

Texas Medical Journal, October, 1908.

Some Reflections on Psychotherapy.—

Dr. Julius Grinker summarizes his paper as follows:

1. There are two methods in psychotherapy, (a) suggestion, (b) education and persuasion.

2. Hypnotism, a form of suggestion, should be employed as a last resort, but it

has its legitimate uses.

3. Psychotherapy is part of general medicine and surgery, consequently it should be utilized by physicians and not left to quacks or healers.

4. A most painstaking physical and mental examination is a necessary prerequisite to successful psychic treatment, as the patient must often be treated both physically and psychically.

5. Psychotherapy should be incorporated in the regular curriculum of every medical school, because the best interests of the public and the profession demand that this powerful weapon for good, if properly used, shall be placed early into the hands of sane and safe men.

Pyorrhea Alveolaris.—Julian Smith, D. D. S., says that the deleterious effect of pyorrhea on the system can be better determined by the medical practitioner than by us, but the one item of a continual mixture in the food during mastication of millions of streptococci, to be carried into the stomach and there to be distributed to all parts of the system, if any escape their natural germicidal enemies, must have an evil effect on the vitality, and certainly give the organs that produce antitoxic agents an extra amount of work that might be put to better service.

The treatment of the disease from our standpoint, i.e., the dentist's, is purely a local one, and it is up to the medical profession to determine theirs. Thorough instrumentation, the removal of all foreign substances, all necrosed tissue from the root of the tooth and curetting the bone, leaving no ragged edges (due to absorption). Liberal bleeding of parts during operation, followed by thorough washing with some germicidal agent and calcic solvent, such as lactic acid, phenolsulphonic acid, 20 per cent. solution trichloroacetic acid, or aromatic sulphuric acid. The after-treatment consists of antiseptics, astringents and stimulants accompanied by frequent massage and a good aseptic mouth wash to be used continually.

The Southern Medical Journal, Oct., 1908.

Anaesthesia Deductions from One Thousand Cases.—Dr. W. M. McCabe

gives the following contra-indications to general anaesthesia: The contra-indications to any general anaesthetic excepting nitrous oxide, which produces no post-anaesthetic effects, may be summed up briefly as follows: Fatty degeneration of the viscera, severe kidney or bronchial diseases, Addison's disease, marked sepsis, enlargement of the thymus and lymphatic system in general and inanition. While not dangerous

in permanent insanity, it is exceedingly so in temporary or recurrent insanity. Basedow's disease was formally considered a contra-indication to general anæsthesia. Crile (*Annals of Surgery*, June, 1908) shows conclusively that the bad result formerly experienced after thyroidectomy was due to the psychic phenomena resulting from the fear of operation, and not to the anæsthetic per se. He secures the patient's consent to operate, but does not set a date. Volatile oil is administered on a cone for a few days, the patient assuming that she is receiving inhalation treatment. On the morning of the operation the pseudo-treatment is begun, but ether is soon substituted and the patient anæsthetized without her knowledge. On the evening before operation bromides are administered, and on the morning of operation morphia gr. $\frac{1}{4}$ is given.

Renal Calculus. Dr. Perry Bramberg's differential diagnosis in the above condition is as follows:

From tuberculosis a very careful examination will be required, for there are cases in which the colicky pains due to the passage of cheesy debris, pus and blood in the urine, certainly simulate stone. A careful scrutiny of the history, minute examination of other parts of the body for tubercular foci, the existence of fever, sweats and loss of weight, with an increase in the quantity of the urine voided, will furnish aid in separating these conditions. The finding of tubercle bacilli, or positive findings in inoculation tests will always suffice. Cystoscopic examination, where involvement of the vesical end of the ureter has occurred will reveal the typical changes taking place in that organ.

Gall-stones—the location of the pain, the upward and backward direction in which the pain is reflected, the existence of tumor over the gall bladder, and jaundice will usually suffice.

Appendicitis, tubal and ovarian disease, the location of the pain, the absence of reflected signs, urinary findings, increased leucocytosis, etc., should be sufficient, though the error has been made.

Displacements with Deitel's crises are not of difficult recognition. Affections of the urinary bladder may be eliminated by cystoscopic examination.

The girdle pain of ataxia may be mistaken with renal, but will be found with the Argyle-Robinson pupil, Romberg's symptom and absence of reflex. Malignancy and tumor are accompanied by a more profuse hematuria, cachexia, a different history and absence of urinary findings as in stone.

Gaillard's Southern Medicine, October, 1908.

Treatment of Summer Diarrhoea in Infants.—Dr. McGuire Newton says that if the condition is acute and the stools contain mucus and blood, irrigate, for the reason that retention and decomposition of the mucus and blood irritate the bowel, keep up tenesmus and retard recovery. In this condition the irritation should be followed by injecting into the rectum an ounce of starch water containing from two to four drops of laudanum. If acute symptoms have subsided, irrigation should not be used oftener than twice a week, inasmuch as it has a tendency to encourage the production of mucus.

If the stools contain much fluid, irrigate, for the reason that this fluid in the colon irritates the mucous membrane and produces marked pathological lesions similar to those which separate cases of ileo-colitis from intestinal intoxication, and also for the reason that irrigation supplies fluid to overcome the depleting effect of these watery stools. So long as there is much fluid, irrigation should be used twice a day, and after the solution has returned, it is beneficial to inject two to four drachms of bismuth suspended in two to four ounces of starch water.

The only contraindication to the use of irrigation is the inability to secure the necessary apparatus.

The American Practitioner and News, Oct., 1908.

What the General Practitioner Should Know about Skin Diseases.—Dr. H. H. Koehler says in regard to epitheleomata. The persisting in a *noli me tangere* attitude has forced many an unfortunate victim to the surgeon for relief of a condition which in the beginning could have been called trivial. If such conditions are treated at all, most commonly we find the soft-hearted family counsellor has used some superficial caustic, like silver nitrate, the irritation of which only serves to stimulate a dormant condition into an active one. In conclusion, the author says that the treatment of cutaneous diseases is not the province of every one, no more than the fitting of glasses. Most skin affections are annoying, some disfiguring and a few fatal. They merit as much study as any other departure from health, and should be the subject of as much detailed work as any.

Virginia Medical Semi-Monthly, Oct. 9th, 1908.

Principles Concerned in the Treatment of Intra-Abdominal Tumors.—Dr. G. P. LaRoque believes that a swelling limited to the abdominal wall presents the following characteristics:

There are no symptoms referable to internal organs except perhaps as a coincidence—then such symptoms show no relation to the evolution of the swelling.

Mobility with respiration or independently of respiration is with the structures of the abdominal wall and independent of mobility of the diaphragm; i.e., out and in and laterally—not up and down.

Contraction of the abdominal muscles while rising in bed with the arms folded, causes no flattening nor disappearance of swelling and may accentuate it.

Palpation notes superficial location and mobility over or with abdominal muscles.

Dullness is always elicited; deep tympany may be muffled.

In all general enlargements of the abdominal wall, the umbilicus is depressed.

Cutaneous and subcutaneous swellings are not limited to the abdomen, though they may be greatest there. They generally involve also the upper thighs, back and lower thorax.

All swellings below the deep layer of superficial fascia are limited below by the attachment of the latter to the fascia lata just beyond Poupart's ligament, and in the mid line by attachment to deep structures.

Principles of Surgery Lecture L—Shock—History—Clinical Picture of a Typhoid Case—Causes—Pathology—Symptoms—Terminations—Diagnosis—Prognosis—Treatment—Question of Operation During Shock.—By Dr. Stuart McGuire, Richmond, Va.

Atlanta Journal-Record of Medicine and Surgery, October, 1908.

Conservatism in Railway Surgery.—

Dr. W. P. Whittington believes that in very extensively mangled legs or arms the limb may be immersed for from twenty-four to seventy-two hours in a saturated solution of sulphate of alum. This solution of sulphate of alum is not extensively used, so far as I am informed, but it is practically harmless and has fine antiseptic powers and acts as an astringent on the extensively lacerated and bleeding tissues. As soon as the bleeding ceases and if the tissues show an anæmic appearance the solution should be discontinued or made weaker. Dry or moist antiseptic dressing should be continued and sloughing surfaces separated as early as possible, care being taken not to open up raw surfaces more than is necessary, as such a proceeding would encourage the absorption of septic matter. Another good method is after the parts are thoroughly cleansed with soap and water, to mop the raw surface thoroughly with pure carbolic acid followed with 95 per cent. alcohol, and paint it thoroughly with tincture of iodine.

After healing has taken place it may be necessary to do plastic operations to complete the work that nature failed to do.

Exploratory Puncture of the Drum Membrane in Certain Diseases of the Middle Ear.—

Dr. Dunbar Roy says that a great deal has been said and written about the puncture of the drum membrane in acute otitis media. Both sides have their advocates and after all such is but an expression of individual experience. He is a poor doctor who does not demonstrate for himself the usefulness of any remedy. Personally, he believes that he has been able to save his patients many hours of suffering and pain and many days of anxious watching and waiting by an early puncture of the drum membrane. He has never seen bad results follow when it was not used and has never hesitated to puncture a drum membrane if it is beefy red in toto and the patient is suffering with a throbbing deep seated pain. In such cases secretion is, by its pressure presence, always found and was the cause of the pain.

Many a mastoid abscess has been aborted by an early and free incision in the membrana tympani.

In cases of subacute otitis media or where an acute case is long drawn out, where the congestion has disappeared from the drum and the ear still feels full and not relieved by inflations, in such case an exploratory puncture will do no harm and frequently prove of instantaneous relief to the patient.

Alabama Medical Journal, October, 1908.

Treatment of Tubercular Joints.—

Dr. I. J. Sellers says in part when the tissues in and around the joint are extensively involved, fever, swelling, etc., in the absence of free pus many good results have been obtained by the injection into the joint of 10 per cent. iodoform emulsion; 5, 10 or 15 c.c. being used every two or more weeks as indicated. This is quite painful and should not be done oftener than is absolutely necessary. Sterilization of sinuses and abscess cavities may be readily had by the use of carbolic acid and in one or two minutes should be neutralized with alcohol and thoroughly irrigated with normal salt solution. Personally I prefer wiping with dry sterile gauze. The medicinal treatment with a view of curing these cases is contraindicated and such drugs as may be used are only indicated from time to time to meet some special acute condition. As to the length of time required for the treatment and supervision of these cases, it varies from a few months to several years, depending largely on the part involved and the resistance of the patient to overcome

the disease at the time the treatment was begun.

Diagnosis and Medical Treatment of Gastric Ulcer.—Dr. J. E. Dedman's conclusions on this subject are as follows:

1. Gastric ulcer uncomplicated is a strictly medical disease.

2. There are complications which arise, such as hæmorrhage, anaemia, and persistent vomiting, which still are amenable to medical treatment.

3. As far as the treatment of the ulcer itself is concerned, absolute rest in bed for at least four weeks is imperative, and the Lénhartz diet is the best yet devised, being far superior to any form of rectal nourishment, because it really does give the stomach rest and at the same time supplies the patient with a highly nutritive food.

4. Drugs are of little value, as far as healing the ulcer is concerned.

5. Olive oil on account of its caloric value and property of reducing hyperacidity is of much value, but should not be given in cases where there is pyloric stenosis, as it retards evacuation of the stomach contents.

6. The hæmoglobin percentage should be carefully watched and some form of iron or arsenic administered to maintain it.

7. A careful dietetic regime should be enforced for practically a year, and no patient should be considered cured unless the cessation of gastric symptoms lasts for at least two years.

8. Uncured ulcers, quasi-cured ulcers, and even the cicatrix of healed ulcers offer a most inviting habitat for carcinoma later in life.

9. Persistent, unrelieved hæmorrhage, painful perigastric adhesions, hyperplastic infiltrations resulting in pyloric stenosis, and perforation are phases of gastric ulcer that unquestionably belong to surgery.

Virginia Medical Semi-Monthly, Oct. 23, 1908.

The Medical Side of the Alcoholic Problem.—Dr. T. D. Crothers says that medical study of inebriety shows that it grows up from distinct causes which are both inherited and acquired, and are always associated with exhaustion, cell starvation and poisoning, and that given certain conditions in certain surroundings, inebriety may be predicted with absolute certainty.

Thus neglect of hygienic living, had nutrition, bad training, underwork, and overwork, living in clubs and saloons are certain to explode a train of causes which develop the neurosis of inebriety and alcoholism.

This is the same order of events by which germs, scattered in water and milk, develop into typhoid fever in the large majority of

cases. In both it is specific causes developing in favorable soil, and producing exact results.

The epidemics of typhoid fever are traceable to germ causes which have had an origin, growth and development. The inebriate has grown from equally exact conditions of physical causes acting along lines of uniform laws.

Tuberculosis is one of the great vital questions of the day. The recent congress at Washington, discussing the cause and means of treatment, made no reference to moral forces or questions of will power. It was simply a matter of germ causes, their origin, growth and prevention.

Correlation of the Physician and the Layman—Address of the President of the Medical Society of Virginia.—Dr. W. F.

Drewry suggests that, at this session of the society, special committees be appointed whose duty it shall be to co-operate with and aid our legislative committee in studying the situation and the apparent needs. And at the next session analyze the recommendations of the committees. And then bills should be properly drawn and presented early in the session.

The subjects which seem to me to be worthy of such consideration are:

1. The physician's license tax (a matter about which we have already spoken in no uncertain tone.)

2. Amendments in the medical practice acts; adequate protection of a credulous public against the pernicious practice of quack fleecers.

3. Regulation of the manufacture and sale of impure, adulterated drugs, and "patent" and proprietary medicines.

4. Further restriction of the selling or distribution of cocaine and opium or "remedies" containing them.

5. Further improvement in laws relating to public health organizations; the registration of all birth and deaths, and the systematic collection of vital statistics.

7. The establishment of sanatoria for consumptives; colonies for the epileptic, the imbecile, and probably the inebriate; increase of the funds to be expended by the State Board of Health in the excellent work already begun.

7. Uniform medical examination of school children and the teaching and the practical application of school hygiene; special schools for the training of backward or weak-minded children.

8. Statutory regulation of marriage of the unfit, the imbecile, etc.

9. Revision of laws regulating expert testimony.

Maryland Medical Journal, Oct., 1908.

Maryland Hospital for the Insane.—Eighty-five per cent. of the inmates are employed in one way or in another about the institution. The farm, which produced more than \$18,000 worth of eatables last year, was operated entirely by the patients under the guidance of six paid foremen. The industrial shop, the upholstery shop, the tin shop are conducted on the same principle, there being but one sane man, the manager, in charge of a shop of 25 inmates. Altogether the men manufactured in the shops 2500 articles and repaired about 5000. The newspaper is edited and printed entirely by patients, with only a slight restrictive superintendence of the matter by the superintendent. The women are likewise kept busy, though the facilities for their occupation are very much more limited. The sewing-room manufactured over 8000 articles and repaired over 7000. Speaking roughly, the inmates make nearly everything they use. No work is done on Sunday; nothing is sold, no pay is given for the work done. But industrious workmen are rewarded by extra privileges, such as special, the right to keep pets, and the like. Tent life is provided for patients with tuberculosis. The institution is not without locks and bars, but the restraints used are as mild as possible with the force of attendants provided by the State. For the hopelessly insane it is thus a sheltered, busy home. For the curable it is a hospital, with occupation-diversion.

The Mobile Medical and Surgical Journal, October, 1908.

Perforating Wounds of Uterus, Inflicted During the Course of Intra-Uterine Instrumentation.—Dr. H. P. Heinech points out the following on the subject of curettage:

Dilatation of the cervical canal, and instrumental curettage of the uterine cavity are, owing to their associated dangers, not office operations. During the performance of either of these two apparently danger-free operations, the operator may be confronted by accidents, the meeting of which requires the highest surgical skill. In their performance, if an anæsthetic be available, the employment of general anæsthesia (in the absence of contra-indications) is highly desirable, in fact, the rule, should be:

a. No uterine cuttage without general surgical anæsthesia. It is easy to conceive how an unanæsthetized patient can, by injudicious jerks or movements, perforate her own uterus, by impaling it, by spiking it upon the intra-uterine instrument. Anæsthesia permits the operator to depress the abdominal wall, to locate, to fix, if neces-

sary, the fundus uteri.

b. No curettage without ample cervical dilatation. A non-dilated cervical canal interferes with the tactile sense and thereby with the proper manœuvring of intra-uterine instruments. Steady the cervix, before beginning the dilatation of the canal.

Book Notices.

Practical Points in Anesthesia. By Fredrick-Emil Neef, B. S., B. L., M. L., M. D., New York. Price Semi-De Luxe-Cloth 60 cents, post paid. Library. De Duxe Ooze Flexible leather \$1.50 post paid. Surgery Publishing Co., 92 William St., N. Y., U. S. A.

A very practical monograph which presents the author's impressions on the correct use of chloroform, ether, etc. It gives a simple and coherent working method, and is of particular value to those general practitioners who are so situated that the services of a trained anesthetist cannot be secured. Among the subjects covered are: Induction of Anesthesia, Cardiac and Respiratory Collapse, When shall the Patient be Declared Ready for Operation, Maintenance of the Surgical Plane of Anesthesia, Important Reflexes, Vomiting during Anesthesia, Obstructed Breathing, Use of the Breathing Tube, Indications for stimulation, Influence of Morphine on Narcosis, General Course of Anesthesia, Awakening, Recession of Tongue after Narcosis, Post-Operative Distress, Minor Anesthesia with Ethyl Chloride, Intubation Anesthesia, etc., etc.

This extremely practical and useful little book is condensed to about fifty pages, but every page replete with valuable data. Printed upon heavy India Tint Special Cheltenham paper with Cheltenham type, with marginal headings in contrasting colored ink.

Surgical Memoirs and Other Essays. By James G. Mumford, M. D., Instructor in Surgery, Harvard Medical School; Visiting Surgeon to the Massachusetts General Hospital; Fellow of the American Surgical Association, etc., etc. Illustrated. New York. Moffat, Yard & Company. 1908.

Not long ago this Journal editorially lamented that the historical literature, of medicine and surgery was so neglected or perhaps we should say that indeed there is such a scarcity of such literature. At that time this volume by Dr. Mumford had not come into our hands, else our lament might have been withheld. Already well known

because of his authorship of a volume on American medical men which appeared several months since, the present work but adds lustre to his accomplishments. Written in polished style, "Surgical Memoirs," furnishes most attractive entertainment for the student of medical history. Among medical heroes it is the positive, the virile, the real, that appeals to us. Mists and vapors, hypotheses and systems, do not interest the average modern reader; but things accomplished and the final word said, do interest him. Deeds done, facts accurately stated, action taken in accordance with what is known,—these things are characteristic of the history of surgery as distinguished from much of the history of medicine. The two cannot always be divorced but where it is possible the tale of surgery and of the surgeon will attract the reader. Dr. Mumford has succeeded most admirably in tracing out the history of surgery from the time of Hippocrates down to the very latest accomplishments in the field of surgery of the vascular system. Twelve splendid half-tone illustrations taken from portraits of some of the masters of surgery adorn the pages of this volume and contribute greatly to its value. The development of American surgery has not been neglected; the author shows how the best of American surgery grew out of English surgery, with the illustrious John Hunter as the prophet. Another chapter devoted to a discussion of the teachings of the old surgeons gives the reader a wonderful insight into the practices of the ancient and pre-antiseptic days. The book ought to be in the hands of every student and every doctor. It will be a valuable addition to any library. Handsomely bound in green and gold, well printed on the best quality of paper, beautifully illustrated, it is very attractive in appearance. Together with the volume on American medicine it completes a very valuable consideration of medical and surgical history by a highly gifted writer.

The Practitioners' Visiting List for 1909.

An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail of practice. The Weekly, Monthly and 30-Patient Perpetual contain 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil and rubber, and calendar for two years. Price by mail, post-paid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive

circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

Being in its twenty-fifth year of issue, The Practitioners' Visiting List embodies the results of long experience and study devoted to its development and perfection.

It is issued in four styles to meet the requirements of every practitioner: "Weekly," dated for 30 patients; "Monthly," undated for 120 patients per month; "Perpetual," undated, for 30 patients weekly per year, and "60 Patients," undated, for 60 patients weekly per year.

The text portion of The Practitioners' Visiting List for 1909 has been thoroughly revised and brought up to date. It contains among other valuable information a scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

Printed on fine, tough paper suitable for either pen or pencil, and bound with the utmost strength in handsome grained leather, The Practitioners' Visiting List is sold at the lowest price compatible with perfection in every detail.

Lectures on Principles of Surgery. By Stuart McGuire, M. D., Professor of Principles of Surgery and Clinical Surgery, University College of Medicine, Richmond, Va. Southern Medical Publishing Company, Baltimore, Md. 1908.

Southern men are coming into their own in the matter of original work and original literary productions. Too much can scarcely be said by a Southern reviewer in praise of a book which is genuinely worthy and which is produced by a Southern author. Dr. Stuart McGuire, because of his long experience as a teacher, a clinician and surgeon, is eminently well qualified to present a book on the subject of surgery. That he has succeeded well in his self-imposed task is beyond question. The popularity of his lectures on the principles of surgery delivered before his classes at the University College of Medicine in Richmond attest his ability as a teacher. His fame throughout this country affirms his position as a great clinician and surgeon. His success in all these lines establish his right to speak authoritatively. In his own words "the subject of Principles of Surgery is one of

great importance to both the student and the practitioner of medicine. To the student because it teaches him the etiology, pathology, symptomatology, diagnosis and treatment of surgical diseases and injuries; and to the practitioner because, owing to the increase in the field of surgical work, it is impossible for him to remember the technique of the various operations devised to meet special indications, and often in emergencies successful practice must be based on a knowledge of primary principles."

Many valuable books have been published on Principles of Surgery, but some are out of date, some give undue prominence to the writer's personal views, some are incomplete as to subjects discussed, and some are so exhaustive as to be useful only for reference. Against Dr. McGuire's book none of these objections can be raised. Written in simple, concise language it is free from useless detail and is therefore ideal for the student. The chapters are well arranged and follow in logical order. The first five lectures are devoted to a more or less general consideration of *Theories of Disease, Surgical Bacteriology and the Blood*, then follow three lectures on *Regeneration and Repair*. The discussion of *Inflammation, Abscess and Ulceration* is quite good and occupies the next eleven lectures, after which two lectures are given to the subject of *Gangrene*. The lecture on *Shock* is one of the best short articles we have seen. *Surgical Fever* and the *Acute Surgical Diseases* are discussed in five lectures. The author's treatment of the subject of *Surgical Tuberculosis* and of *Syphilis* in the nine succeeding lectures is thoroughly up-to-date and gives evidence of a consummate grasp of the subject. *Tumors* are discussed in five lectures and *Wounds* in four. These subjects are handled in masterly manner. Among the most useful chapters of the book are the three lectures on *Aseptic Surgical Technique*. The author's wish is to lay down such rules as shall be *simple, uniform and reasonable*. A perusal of these chapters proves that he has succeeded in his purpose. Every student and every doctor would find these chapters of immense help, because he has not always to do his work with every appliance right at hand. The subject is divided into a discussion of the preparation of the patient, of the operating room and the after care of the patient. In the last two lectures are taken up a consideration of the *Influence of Constitutional Conditions on the Result of Operations and Anesthesia and Anesthetics*. It is impossible to present every excellent feature of the book, for our genuine appreciation of its value would lead the reviewer still further into his favorable emendations. The type is large and clear,

the paper is fair, the binding attractive, and while there are a few typographical errors, they are not numerous enough to detract from the other excellent features of the volume. We would unreservedly recommend it to students and teachers and doctors generally. It would be a valuable addition to any scientific library.

Arterio-Sclerosis: Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis, and Treatment. By Louis M. Warfield, A.B., M.D., Instructor in Medicine, Washington University Medical Department, &c., &c. With an introduction by W. S. Thayer, M.D., Professor of Clinical Medicine, Johns Hopkins University. Illustrated. C. V. Mosby Medical Book Company, St. Louis, Mo. 1908.

Dr. Warfield in this small volume has filled a very distinct want in the field of diseases of the blood vessels. He has presented a very readable, not to say authoritative, essay on a disease which is especially an outcome of modern civilization. The author incorporates all that is newest and best in experimental research, summarizes all the most recent ideas of leading clinicians and supplements these with results from his own experience.

There can be no doubt but that as a result of the stress and strain of our artificial daily life, arterial disease is becoming more common and more frequent in the young especially. Dr. Warfield discusses fully the anatomy of the blood vessels, Physiology of the Circulation, Pathology, Etiology, Symptoms and Physical Signs, Diagnosis, Prognosis, Prophylaxis and Treatment. It is upon the prevention of the disease called Arterio-Sclerosis that the author lays special stress, since little can be done for the fully developed affection. The text is clear in style, concise in expression and the illustrations, although not numerous, are quite good and indeed sufficient.

Transactions of the Thirtieth Annual Meeting of the American Laryngological Association held at Montreal, Canada, May 11th, 12th and 13th, 1908. Published by the Association, 1908. New York. Jas. E. Newcomb, M.D., Secretary, 118 W. 69th St., New York City.

Containing the annual report of the officers of the association, the proceedings of the meetings, and a long list of very valuable and interesting papers by the foremost laryngologists of this country.

Woman. A Treatise on the Normal and Pathological Emotions of Feminine Love. By Bernard S. Talmey, M.D., Gynecologist to Yorkville Hospital and Dispensary.

sary, &c. For Physicians and Students of Medicine. Illustrated. Third Edition, Enlarged and Improved. The Medical Council, selling agent, 4105 Walnut St., Philadelphia, Pa.

It is difficult to comprehend why a book of such a character should have so quickly reached a third edition, granting indeed that it has been sold chiefly to medical men. There can be no real necessity for such a book among doctors, for it deals chiefly with subjects concerning which the physician demands no special knowledge and it tells him nothing which he may do for the abnormal conditions described. The fact is, the influence of the book can be little short of pernicious, for it will be by no means possible to confine its perusal to medical men who are supposed to be proof against the erotic sensations which such literature would excite in those outside the profession.

Transactions of the American Surgical Association. Volume the Twenty-sixth. Edited by Richard H. Harte, M.D., Recorder of the Association. Printed for the association and for sale by William J. Doonan, Philadelphia. 1908.

This volume contains, besides a list of the officers and members of the association, a report of the committee on necrology and a long list of papers chiefly on surgical subjects, by some of the most eminent surgeons of America as well as some from foreign countries. Articles by Jas. E. Mears, of Philadelphia, Jno. B. Murphy, of Chicago, Moynihan, of England, W. J. Mayo, of Rochester, Minn., Jno. B. Roberts, of Philadelphia, A. D. Bevan, of Chicago, Geo. W. Crile, of Cleveland, Geo. H. Monks, of Boston, Finney, of Baltimore, H. M. Sherman, of San Francisco, deserve special mention. They are distinct contributions to medical literature.

International Clinics. A Quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopedics, Pathology, Dermatology, Ophthalmology, Otolaryngology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by W. T. Longcope, M.D., Philadelphia. Vol. III. Eighteenth Series. 1908. Philadelphia & London. J. B. Lippincott Company.

This volume of the International Clinics presents as usual an array of most excellent articles by authorities from both sides of the Atlantic Ocean. It would be diffi-

cult to choose what is best from the number: that would be the result largely of individual preferences. But in the reviewer's opinion the articles deserving of special mention are: *Perforation of the Intestines in Typhoid Fever*, by Dr. J. A. Scott, of Philadelphia; *Melanotic Neoplasms*, by Drs. J. H. Gibbon and D. L. Despard, of Philadelphia; *Diarrhoeal Disorders of Infants*, by Dr. J. H. M. Knox, Jr., of Baltimore; *On the Trail of the Subconscious*, by Dr. Joseph Jastrow, Ph.D., of the University of Wisconsin; and *Studies upon the Etiology of Appendicitis*, by Dr. Richard Kretz, of Prague.

Therapeutics of the Circulation. Eight lectures delivered in 1905 in the Physiological Laboratory of the University of London. By Lauder Brunton, Kt., M.D., D.Sc., L.L.D. (Edin.), L.L.D. (Aberd.), F.R.C.P., F.R.S., Consulting Physician to St. Bartholomew's Hospital. Published under the auspices of the University of London, with 240 illustrations. Philadelphia. P. Blakiston's Son & Company. 1908. Price, \$1.50 net.

This book consists of a series of lectures delivered by that eminent investigator, Sir Lauder Brunton, in the Physiological Laboratory of the University of London. It presents a thoroughly practical study of the heart and blood vessels, the physiology and pathology of the circulation and methods and means by which diseases of the circulatory apparatus are best treated. All the latest methods of study and such mechanical contrivances as are employed in such study are described with characteristically concise economy of words. The most modern knowledge and theories are presented in very attractive form and the text is most copiously illustrated with diagrams, charts, tracings, and cuts of apparatus, all of which add greatly to the value of the book and contribute no little toward elucidating the somewhat difficult problems in which a study of this subject naturally involves the investigator.

The text is well printed on excellent paper and an exhaustive index makes reference easy. For students and teachers the book is invaluable and for the doctor who daily is confronted with circulatory therapeutic problems it will prove a great help.

The Physician's Visiting List (Lindsay and Blackston's) for 1909. Fifty-eighth year of its publication. P. Blakiston's Sons & Co.

This is one of the most complete and convenient of all the visiting lists of which we have any knowledge. Handsomely bound in durable, flexible leather, printed on the

best of paper with gilt edges it makes an unusually nice appearance. It contains many useful tables which are accurate and exceedingly handy at times of emergency. The dose-table is up-to-date, having been revised in accordance with the United States Pharmacopia of 1905. According to the number of patients for which arranged, varying from twentyfive to one hundred per day or week, the price is \$1.00 to \$2.25.

Infantilism. By C. O. Herter, M. D., Professor of Pharmacy and Therapeutics in Columbia University. The MacMillan Company, New York, 1908. Price 90 cents net.

In this small volume of something over one hundred pages Dr. Herter describes some of the features of an obscure affection of childhood to which the descriptive term *Infantilism* has been applied. His studies deal with that form of Infantilism which is due to chronic intestinal infection or an overgrowth or persistence of the intestinal flora of the nursing period. He bases his conclusions on the study of the clinical course, bacteriology, chemistry and therapeutics of ten cases of arrested development in infancy. Dr. Herter's work on this affection has been carried out in a thoroughly scientific manner and his book deserves the closest attention by the profession.

Obstetrical Technique. By Joseph Brown Cooke, M. D. Adjunct Professor of Obstetrics in the New York Polyclinic Medical School and Hospital; Surgeon to the New York Maternity Hospital, etc. Illustrated. Sixth edition. Enlarged and fully revised. Philadelphia and London. J. B. Lippincott Company, 1908.

A handy manual of Obstetrical Technique designed and written especially for him who must deal with these cases in private practice cannot fail to prove itself useful to the doctor whose time is too often so taken up with work that he has not the time to find needful information in larger and more cumbersome volumes. A medical book which in eight years has reached its sixth edition needs little praise at the hands of the reviewer. We have only this to say: we have seen no manual which so completely covers the field, so nearly fulfills all the wants of the doctor, or which excels in clearness and conciseness of expression. The illustrations are quite numerous, are original and helpful and are very beautifully executed. Methods described are essentially and thoroughly practical and simple as possible. The present edition has been largely re-written and brought thoroughly up-to-date. The chapters covering Forceps, Version, the Miti-

lating Operations, the Induction of Abortion and Premature Labor and Curettage are most excellent, if indeed it could be said that any special portion of the book is more meritorious than another. We would recommend the book to all physicians who desire the best.

Suggestive Therapeutics, Hypnotism, Psychic Science. A Handbook by Henry S. Munro, M. D. Americus, Ga. Second edition. C. V. Mosby Medical Book and Publishing Company, St. Louis, Mo., 1908.

That Dr. Munro's book has found a fertile field is shown by the fact that it has been necessary within so short a time as 9 months to issue a second edition. The medical profession as a whole is coming more and more to the realization of the necessity of something beyond the mere application of drugs toward the removal of abnormal states of the human frame. Psychotherapy is being recognized as a most valuable—perhaps the most potent—adjunct to the physician's armamentum, so to speak. Many volumes have been written upon this subject by neurologists, scientist and psychotherapists of note, but in most cases they lack the practicability so essential to the successful employment of *suggestion* by the general practitioner. The author's aim has been—and he has succeeded remarkably well—to emphasize the value of suggestive therapeutics in a field of work that comes within the domain of the every day doctor, and to instil into the vast mass of the profession to whom this entire field is as yet *terra incognita*, those basic principles of physiological psychology upon which the scientific therapeutic application of suggestion depends. With this end in view, principles of all pervading importance are iterated and reiterated as often as their application comes under consideration, that they may become so fully absorbed and assimilated as to be almost axiomatic to the reader. The book is well written, and numerous illustrative examples are cited in which suggestion may be applied with excellent results. The text is printed on excellent paper in clear faced type. Every physician should have a copy of this book and should read it carefully.

Gonorrhœa in Women, By Palmer Findley, M. D., Professor of Gynecology in the College of Medicine of the University of Nebraska, Omaha, etc., etc. C. V. Mosby Medical Book and Publishing Company, St. Louis, Mo. 1908.

Dr. Findley would undoubtedly accomplish a task of the vastest import did he but begin to succeed in his hoped for

task; to awaken the medical profession to a greater realization of the supreme importance of the subject of Gonorrhœa in Women. It is to be said that he has performed a work worthy service in presenting in this monograph a compilation of the best of medical literature on this important subject. Nowhere else in English or American medical literature is it presented in its entirety. He has covered the field with remarkable thoroughness and his contribution deserves the closest attention on the part of the medical press and profession of this country. The sections on pathology, diagnosis and treatment are particularly good. A classified list of the Bibliography of Gonorrhœa in Women is by no means one of the least important feature of the volume.

Anatomy for Beginners.

The brain is the headquarters of the nervous system and contains the central offices of the Anatomical Telephone Company.

When the suburban nerve-centre says, "Hello, Central," the brain either replies, "What number?" or "Busy," or "Out of order," as the case may be. Sometimes the wires are crossed and the company fails to declare any dividends, thus placing the entire brain in the hands of a receiver.

From the brain issues the spine, which is sometimes useful in matrimony, although rarely strong enough in man for practical purposes, and constantly growing weaker the longer he is married.

On top of the head the hair grows, or is supposed to. In some cases, however, it fails to grow despite the most painstaking efforts.

In ladies there are two kinds of hair: viz., imported and domestic; in gentlemen also two kinds, namely, permanent and transient. The permanent is seen in wild men; the transient in civilized men, when young.

At one time all the hairs were carefully numbered, but the practice has been discontinued owing to great pressure of other matters.—Thomas L. Masson in *December Lippincott's*.

Abstracts of the Leading articles of the month.

Pyopericardium in Children.—Poynton in the British Medical Journal says that pyopericardium in young children may occur in a general pyæmia, as a sequence to a local infection, complicating, for example, suppurative otitis, osteomyelitis or septic wounds. In such cases septic ab-

cesses may be found throughout the body. Pericarditis under such circumstances is a deadly complication. In young children, under twelve years of age, pyopericardium is almost invariably associated with pulmonary disease, which is most commonly pneumococcal in origin. The condition is met with in males and females equally, but eighty-three per cent. occur before the fourth year of life is completed, and two-thirds between the ages of one and three years. Primary pyopericardium is excessively rare. Diagnosis is beset with difficulties. The first one is the usual absence of pericardial friction. The poisons leading to pyopericardium have a more peptonising or digestive power than the rheumatic; and so the exudations are softer and more creamy in consistence and less harsh—hence friction is much less frequent. The early age of the patient furnishes another great difficulty in diagnosis. Then there are almost invariably signs of severe pulmonary disease, such as pneumonia, pleurisy, empyema, all of which distract attention from the heart. Lastly there is the absence of endocarditis. The cases may be grouped into three classes:

1. The acute, running their course in about four weeks, and including twenty per cent.
2. The subacute, lasting from four weeks to six months, and including fifty per cent.
3. The chronic, with insidious onset lasting from six months to over a year, and including seventeen per cent. Among the more important signs are progressive muffling of the heart sounds synchronous with enlargement of the cardiac area, together with marked percussion dullness over the pericardium and sometimes posteriorly in the interscapular region. Tubular breathing or absent breathing or absent breath sounds may also be noted in the interscapular region.

2. A rapid and extensive increase of the cardiac dullness upwards towards the left clavicle. 3. The pear-shaped outline of a distended pericardium. 4. The abrupt transition from the dullness of fluid to resonant lung tissue. 5. A wavy and diffuse pulsation to the left of the sternum. The most common error in diagnosis is the mistaking of half truth for the whole—stopping short at pneumonia or empyema. Another mistaken diagnosis is tuberculosis. The prognosis of suppurative pericarditis in small children is exceedingly grave, and unless a specific serum be obtained, improvements in diagnosis will not help us in treatment. Surgical intervention at present offers the best chance of success.

Gastro-Duodenoscopy and Diaphanoscopy.—Rovsing (Archiv. f. klin. Chirurg.) has had a specially large instrument made for the purpose of gastroscopy. The instru-

ment gives such a large field of view that the whole of the gastric mucous membrane can be inspected with it in a very short time, and, in addition, it can be passed through the pylorus and the first and part of the second part of the duodenum be also inspected. The instrument has an attachment by which the stomach can be inflated with air to permit of a minute inspection of its interior. Not only, however, is it of value for direct inspection, but also for showing up the condition of the stomach wall by transillumination when the operating room is darkened. The illumination given by a bright lamp in the stomach shows up the structure of its wall with great clearness and permits of the detection of ulcers, of neoplasms, of blood trickling from particular points, &c., with surprising ease. The instrument is used by putting a purse-string suture in the stomach wall, making a small hole in the stomach in the circle of the suture for it and tightening up the stitch round the instrument to allow of the inflation of the stomach with air. He has used this instrument in twenty-two cases, and has found it of very great value in detecting the presence of ulcers which could not be demonstrated in any other way either before or during operation. In one case he was able to locate a small lesion from which serious bleeding was coming and ligature it, so probably saving the patient's life. The instrument, without doubt, allows of a much more complete and exact examination of the mucous membrane of the stomach than can be obtained by a naked-eye examination through a hole made in the stomach wall.

Local Anaesthesia in the Treatment of Fractures.—Larda (*Zentralbl. f. Chir.*) has for some time made use of local anaesthesia in the reduction of different kinds of fractures. This practical aid in the treatment of injuries, in which as a rule much pain is caused by examination of the seat of traumatism and by the application of retentive agents, although it has been advocated by Reclus and other surgeons, has not, he says, been widely adopted. After the seat of the fracture has been made out, the anaesthetizing solution is introduced by means of syringe provided with a long needle, at first between the fragments and afterwards around the injured region, until by repeated injections the medulla, the periosteum, and all the soft parts around the fracture are saturated by the fluid. He has, in most instances, used a solution of 1 part of cocaine in 200 parts of physiological saline solution to which is added a few drops of a weak solution of adrenalin. Stovaine and Alynin have also been tried, but these

preparations, the author thinks, are not so efficient as cocaine, and their solutions need to be injected in large quantities. From 5 to 8 centigrams of cocaine may be injected without causing any bad effects, and the styptic action of this anaesthetic agent, together with that of the adrenalin, will tend to prevent or to restrict the formation of a hæmatoma at the seat of the fracture. After an interval of from six to eight minutes, the injection of cocaine is followed by complete anaesthesia of the seat of fracture and cessation of muscular contraction. The method has been found very useful in most fractures, and especially in supramalleolar fractures in which, in the opinion of many surgeons, it is advisable to administer chloroform. Local anaesthesia, however, he believes, is not likely to be of much service in cases of fracture of the shaft of the femur, as the precise localization of this lesion is rendered difficult by the thickness of the soft parts.

The von Pirquet and Calmette Reactions.—Bing (*Berl. klin. Woch.*) has records of 241 children in whom the von Pirquet test was applied. Of the 19 among these who were undoubtedly tuberculous, 14 gave a positive and 5 a negative result—a positive result of 73.7 per cent. of the undoubted tuberculous cases. Among 36 children who were regarded as suspicious of tuberculosis 69 per cent. gave a positive reaction. Among 186 children not tuberculous 34 gave a positive reaction. The five negative cases of the first group included 4 cases of tuberculous meningitis and one of miliary tuberculosis. Von Pirquet has pointed out that the reaction may prove negative in advanced cases of tubercular disease. However, among the positive cases Bing advanced 2 cases of tubercular meningitis and 2 of miliary tuberculosis. In comparing the number of children who reacted to the von Pirquet application of tuberculin, according to their ages, the frequency appeared to increase steadily from 19.3 per cent. in the first year of life, to 56.2 per cent. between the ages of 12 and 14. In all the fatal cases in which a positive reaction was obtained the autopsy confirmed the diagnosis of tuberculosis. The last 100 cases were further controlled by the ophthalmic reaction to tuberculin, Calmette's original 1 per cent. and 1.5 per cent. solutions being employed. The six cases of undoubted tuberculosis yielded 50 per cent. of positive and 50 per cent. of negative reactions; 15 suspicious cases showed 40 per cent. of positive against 60 per cent. of the negative results; whilst among the 79 not tuberculous cases, only one gave a positive reaction and all the others (98.8 per cent.)

gave negative reactions. Among the undoubted tuberculous cases only one showed a difference between the two reactions; this was a case of tubercular meningitis, and gave a positive reaction with von Pirquet and a negative with Calmette. Much more marked differences were noted in the second group. Bing concludes that von Pirquet's reaction reveals every tuberculous focus in the body, save the very advanced ones; whilst the Calmette shows only those which are active and not advanced. Bing further found that none of the cases of enteric fever gave a conjunctival reaction; he believes the cutaneous reaction to be quite safe, which cannot be said of the ophthalmoreaction.

Gallop Rhythm.—Mueller (Muench. med. Woch.) discusses this interesting subject at length and gives numerous instructive curves. There are two types of gallop rhythm, the presystolic and the protodiastolic. The former has the third heart sound (tone) preceding the systolic tone. The protodiastolic type shows pathologic third tone in the first half of the diastole. This pathologic third tone is loudest over the ventricles.

The presystolic type tone is probably due to the blood being forced from the auricle into an incompletely emptied ventricle, i.e., under higher pressure than normal.

The protodiastolic type is met with in weak irregular rapid cardiac action usually associated with stasis.

Gallop rhythm is met with in those cases where the peripheral resistance is greater than normal, as in nephritis, and in other cases where the pressure is lower than normal with a corresponding, yet greater in proportion, decrease in cardiac force. Examples of the latter condition are met with in severe infections, anæmia and cachexia.

The prognosis is not always bad. It is not a dangerous sign in typhus, goitre heart, and cardiac neuroses. It is a graver sign in other conditions, and should always be carefully watched. Frequently prompt therapeutic attention will restore normal heart strength and action.

Arteriosclerosis in Surgical Cases.—Siegel (Muench. med. Woch.) speaks of the relation of arteriosclerosis to surgery. The cases considered exclude those suffering from insufficiency of the heart or kidneys. In this class of exceptions, narcosis and extensive operations are very dangerous. Those individuals with marked arteriosclerosis who can do their work without any signs of exhaustion attributable to the change in their vessels stand the narcosis and operation well as a rule. Even previous

attacks of stenocardia, if the heart is strong, are not considered contraindications to operation. Arteriosclerotics beyond fifty years of age, with good heart action, stand narcosis well, provided no pulmonary affection is present. Arteriosclerotics with emphysema and bronchitis are extremely bad patients for narcosis and surgical procedures, while elderly persons stand narcosis well, young persons afflicted with arteriosclerosis often have alarming attacks of collapse during operations. As was pointed out by Lucas Championniere this class of patients suffer more in incomplete narcosis than in deep narcosis, because the pain is more depressing for them than the effects of complete anæsthesia.

Wounds of the skin and muscles heal well. Operations on the bowels are often difficult because of the brittle condition of the vessels and bowel walls.

Hæmorrhagic pancreatitis and bowel hæmorrhages are often due to sclerotic changes in the vessel walls. Intermittent claudication is regarded as a forerunner of gangrene of the affected extremity and calls for immediate attention.

Various abdominal disturbances as appendicular colic, gallstone colic, and intermittent bowel stenosis, are simulated by arteriosclerosis of the mesenteric vessels.

Care in selecting cases for surgical procedures is recommended.

The Cause of Dysmenorrhœa.—Sellheim (Monatschrift für Geb. u. Gyn.) says that one of the most frequent causes of dysmenorrhœa is the pain produced by traction upon the parietal peritoneum at this period. This hypothesis is based upon the examinations of Lennander, who found that all portions of the internal genitals could be cut, sewed, or burnt without pain so long as the parietal peritoneum was not touched. The uterus is attached by its various ligaments to the parietal peritoneum and under pathologic conditions there may be adhesions fastening it even to a great extent to this peritoneum. It would seem that the sacro uterine ligaments are the most sensitive in this respect and it is quite a usual thing to find these ligaments thickened and sensitive in women suffering from dysmenorrhœa. In many instances the dysmenorrhœa is cured by the digital stretching of these ligaments or by the breaking up of peritoneal adhesions fastening the uterus to the sides of the pelvis. In many cases where the constipation undoubtedly is the etiological factor in formation of this chronic posterior parametritis we can only hope for success by the regular evacuation of the bowels.

In conclusion, he recommends as the best

means of stretching the thickened sacro uterine ligaments, the employment of an electro magnet which, after the placing of iron rings or balls in the vagina, can be put upon the abdomen and by alternately increasing and diminishing the strength of the current, can effect the same purpose that digital massage would do. Particularly in young individuals the avoidance of digital massage is to be looked upon as a distinct advantage.

Cancer of the Jejunum.—Keyser, in the British Medical Journal, reports a case of cancer of the jejunum occurring in a woman, aged thirty-eight years. Cancer of the intestinal tract is usually found at those points where there is a change in the lining epithelium of the canal, such as the junction of the œsophagus and stomach, the anus, etc., or where the canal is subjected to some form of irritation, such as the sigmoid colon and rectum, the hepatic and splenic flexures of the colon, or the cæcum. The small intestine being a tube which is free from sudden bends and containing only liquid matter, is seldom attacked by carcinoma. Nevertheless it is occasionally the seat of cancer. Of the three portions of the small intestine—duodenum, jejunum, and ileum—the first named is much oftener affected than the other two; in fact cancer of the duodenum alone occurs about as frequently as cancer of the jejunum and ileum together. Cancers of the jejunum and ileum are characterized by their relative benignity, the small size of the tumors, the spheroidal celled nature of the growths, which resemble primary cancer of the vermiform appendix, and by not causing the death of the patients. The symptoms of cancer of the small intestine are practically the same as those of the upper part of the colon—viz., pain, often colicky in nature, a tendency to constipation with occasional diarrhœa, anæmia, and later in the disease, cachexia. Occasionally repeated violent hæmorrhages from the anus are seen. A tumor can be felt when the disease is advanced, but is most difficult to find in the early stages owing to the mobility of the small intestine. When palpable it is, in the majority of cases, to be felt in the iliac fossa, most commonly the left, and not in the upper part of the abdomen. Vomiting is not uncommon, but symptoms of obstruction are rarely seen, unless the disease is close to the ileocæcal valve. The annular form of growth, so common in the large intestine, is rarely found. Sudden perforation of the gut with resulting peritonitis not uncommonly occurs, when death almost invariably follows. The average age at which the disease is discovered is 43.9 years. Cancer of the small

intestine occurs in the two sexes with about equal frequency. The chief point of interest in the pathology is that the growth frequently shows spheroidal as well as columnar shaped cells. If the case is seen early enough or a growth is discovered during the performance of an exploratory laparotomy enterectomy and end to end anastomosis should be performed if this is possible. If symptoms of intestinal obstruction are present and the neoplasm is irremovable a lateral anastomosis should be done.

Saline Infusions.—According to the Australasian Medical Gazette it has become so common a practice to inject normal saline infusion into the subcutaneous tissues as a means of stimulating a failing heart that we are perhaps inclined to overlook the fact that this procedure has its limitations and dangers. Oedema of the lungs, watery diarrhœa, effusions into the serous cavities collapse have been known to follow the use of this method of stimulation. According to Rossle, who writes in a recent issue of a German medical journal, a condition of heart muscle consisting in cloudy swelling of the muscle with increased friability has been found in a sufficient number of cases to enable him to assert with a fair amount of accuracy that a saline infusion had been given shortly before death. He records two cases in which he considers that the post-mortem showed a directly injurious effect of the infusions. The introduction of a large amount of saline fluid, except after a severe hæmorrhage, appears to favor the accumulation of serous fluid in various organs and tissues, and this cannot but be a source of danger in cases where the cardiac muscle is impaired or the elimination by the kidneys is defective. We should, however, be disposed to doubt the accuracy of Rossle's conclusions as to the direct effect of saline infusions upon the cardiac muscle, and to think that more probably the softening of the cardiac muscle was an antecedent condition and one which produced the clinical symptoms to combat which the injections had been given. Nevertheless it is well to bear in mind that saline infusions should not be given recklessly.

The Treatment of Eczema with New Tar Preparations.—Herxheimer (Berl. Klin. Wchschrft.) examined a number of new tar preparations, including carboterpin, a solution of coal tar in terpinol and succinol, which is obtained in the dry distillation of amber. These preparations, while useful, were found to possess no special advantages as compared to the customary tar preparations. On the other

hand, the dermato-therapeutic stock of remedies is enriched by carboneol, the residue left from evaporating a solution of coal tar in tetra-chlor-carbon. It appears as a brilliant black thin fluid, having a rather pleasant smell, and may be employed in concentrated form or dissolved in alcohol, or in pastes and ointments. The remedy had a rather slow but very persistent effect in psoriasis, but its chief indications are in the treatment of eczematous conditions. Carboneol is less irritant to the skin than any of the known tar preparations, so that it may be employed even in the acute and moist forms of eczema, where tar medication is otherwise excluded; and the time of healing may be considerably abbreviated by its use. The remedy was successfully employed by the author in certain cases of eczema subsequent to scabies, as well as in obstinate palmar, plantar, genital and anal eczematata. The disadvantages consist in its black color and its staining of the linen. The long time required for its drying on the skin, unless it is painted on in a very thin layer, is also somewhat objectionable. Certain individuals developed erythema when exposed to the sunlight after having had their face and hands treated with carboneol. Tar-acne was observed to follow in no more than 2 among 105 patients.

Almatein in Ulcers and Wounds.—

Venus (*Zentralblatt für Chirurgie*) states that an extensive trial of almatein in surgical practice has convinced him that this is an excellent application to open wounds and ulcers. Almatein, first described by Lepetit of Milan as a dyeing agent, produced by the action of formaldehyde on hæmatoxylin, and used as a substitute for logwood decoction, is a fine scarlet powder without smell or taste, which is readily soluble in glycerine and in alkaline solutions. The author has applied this agent unmixed and in the form of powder to both fresh and infected wounds, and to boils, whitlows, abscesses, suppurating glands, ulcers of the legs, and to acute weeping eczema. He reports that it possesses all the advantages of iodoform and, moreover, is quite free from smell. In 500 cases in which it was used by the author no signs were observed either of local inflammatory irritation or of general poisoning. It has remarkable efficacy in cleansing the surface of an infected wound, and of promoting healthy granulation. In control experiments on the subjects of multiple unclean and infected wounds it was often found that the open surfaces treated by almatein put on a healthy aspect, and granulated sooner than those treated by iodoform or xeroform. The best results of the use of

almatein were observed in the treatment of burns. In fresh lesions of this kind when the vesicles have been opened with aseptic precautions, and as much as possible of the burnt skin removed, the author covers the raw surface with a thick layer of the red powder, and protects the injured region by a dry dressing, the whole being allowed to remain for a few days. At the first change of dressing the good effects of the almatein will be demonstrated by separation of the remaining portions of destroyed skin, and by a growing layer of epidermis along the margin of the open surface. Suppuration soon ceases and the wound is speedily covered by scar tissue. He in his concluding remarks strongly recommends the use of almatein in the treatment of open wounds and ulcers, and asserts that while possessing all the good qualities of iodoform, it is preferable to this powder in being inodorous and free from any toxic properties.

Operations for Prolapse of the Uterus.

—Scharpenack (*Zentrbl. f. Gynæk.*) reports the results in 100 cases of partial or complete prolapse of the uterus in which Schauta's operation of sewing the uterus in the vesico-vaginal fold together with a perineo-plastic was performed. This operation, by which the uterus, instead of being removed, is employed to hold up the bladder and so diminish the chance for a recurrence, apparently gives very good permanent results. It is often difficult to open the anterior peritoneal pouch in cases where the latter has been obliterated by adhesions. Here the writer suggests that after pushing back the bladder as far as possible, a finger in the rectum is employed to push the fundus uteri out and the peritoneum is thus opened directly at this point. None of the 100 patients died as a result of the operation and only a few complications, such as cystitis, injuries to bladder and rectum, local infection, etc., developed. Of the cases operated on, the subsequent condition of 69 could be learned. Twenty-four of them communicated their condition by letter, the remaining 45 were re-examined. It is particularly this latter group that is of interest. Out of the 45 only five showed a recurrence of the prolapse. In these five cases the recurrence was due to the fact that the fixation of the uterus was not near enough to the urethra and also to the fact that the perineal operation was not sufficiently high and thorough. In those cases in which menstruation still occurred there were no instances of dysmenorrhea or other irregularity. He says that certainly in women beyond the menopause this operative method gives the best results and should

supersede pessary treatment even of milder cases of prolapse.

Modern Treatment of Nephritis.—Rovighi (British Medical Journal) in a clinical lecture on the above subject says we should aim at (1) removing everything likely to irritate the kidneys; (2) reduce, as far as possible, the congestion; (3) control the uremic symptoms due to toxic products.

With regard to the first object, there is nothing better than a milk diet. Experiments based on the effect of a milk diet on albuminuria are not entirely conclusive; as it is not safe to rely on one symptom only, the progress of a case of nephritis cannot be safely estimated merely on one symptom. Milk has strong anti-fermentative powers, it lessens the toxicity of the urine, is a good diuretic, has a sedative action on the nervous system and lowers blood-pressure. An absolute milk diet may be enjoined for fifteen to forty-five days. It should be given in small quantities at frequent intervals, and may be rendered palatable by adding sugar, aniseed, chocolate, limewater, etc.

If an absolute milk diet cannot be borne, a mixed diet may be given, excluding foods likely to give rise to large quantities of extractives. The vegetable albuminoids are useful in this respect. Eggs, unless it is found they increase the albumin, may be allowed, the whole being excluded if necessary. A moderate amount of exercise is beneficial. A warm climate is also indicated. To relieve congestion, bleeding, sudorifics, saline injections, and in bad cases decoration are recommended. He does not believe much in the drug treatment of albuminuria *per se*. The reduction or complete absence of salt in the diet has a strong influence in reducing edema. Curiously enough, a diminution of chlorids in the diet corresponds with an increased elimination of chlorids in the urine. Possibly this may be explained by the fact that an excess of chlorids in the blood irritates the vasa endothelium.

Excision of the Tonsil.—Upcott, in The London Lancet, discusses the extrabuccal removal of malignant growths of the tonsil. The author suggests the following steps in the operation in the case of a medium sized growth of the tonsil without obvious glandular enlargement. 1. While the patient is being anæsthetized inject subcutaneously 1-100 grain of atropine. Perform tracheotomy or laryngotomy, and pack the pharynx and mouth with gauze (this may be deferred to a later stage if thought necessary). 2. Make a slightly curved incision from the mastoid process along the

anterior border of the sternomastoid to the level of the thyroid cartilage. 3. Raise the patient's head, tilting the table to an angle of between thirty and forty degrees. 4. Define and retract the sternomastoid. Ligate and divide the common facial vein. Open the carotid sheath at the level of the upper border of the thyroid cartilage, retract the internal jugular, and apply the clamp to the external carotid at its origin, tightening the clamp until the pulsations of the vessel are controlled. 5. Clear away all visible lymph glands and the submaxillary salivary gland. Ligate the facial vessels. 6. The submaxillary triangle is now empty. Define the posterior belly of the digastric and the posterior margin of the hyoglossus with the styloglossus passing over it. Retract the styloglossus downwards (the hypoglossal nerve is below the operative field), draw the posterior belly of the digastric with the great vessels backwards; if the stylopharyngeus comes into view it is also drawn backwards with the glossopharyngeal nerve. The superior and middle constrictors are now exposed in the floor of the wound. Carry the dissection upwards beneath the jaw, following along the internal pterygoid as far as possible. 7. Dry the wound thoroughly and then pack it with gauze impregnated with vaseline. (If tracheotomy was not done at the beginning of the operation it should now be performed and the pharynx plugged). 8. Drill the jaw in two places near its lower border just in front of the masseter. Saw through the jaw obliquely. 9. Draw the ascending ramus outwards, cutting the internal lateral ligament if necessary. Define the lingula with the finger, and pass a hook around the inferior dental nerve, draw it from its canal and cut off. If the inferior dental artery is seen it should be secured. 10. Pass a finger into the mouth and place its tip against the anterior margin of the growth. Open the pharynx with scissors in front of the finger. Continue the incision upwards and downwards until its ends are beyond the limits of the growth. Change the glove of the infected hand. Seize the divided edges with forceps and cut backwards from the ends of the incision until the growth can be delivered from the wound; draw it outwards and divide its posterior attachment. This step might be performed with the galvanocautery, the surface of the tonsil being cauterized as it was drawn out. 11. Suture the pharynx with two layers of stout catgut. The edges should be turned in towards the throat. The first layer should be interrupted, commencing at the bottom, the ends of the stitches being left long in order to draw down the upper and more inaccessible parts of the wound. However

wide the opening may be an attempt should be made to draw together the edges. This will most likely be possible in the lower part of the wound where the pharyngeal walls are more freely movable. 12. Take out the petrolatum gauze packing and remove the clamp from the carotid. Tie any vessels that may bleed. 13. If any of the muscles of deglutition have been divided in the course of the operation they may now be sutured. Replace the ramus of the jaw and wire it in position. 14. Close the wound, leaving the upper part open for a large drainage tube which must pass down to the pharyngeal suture line and should be packed round with gauze. A smaller tube should be placed in the lower angle of the incision.

Miscellaneous.

New Subscribers for November.

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Value of the Widal Reaction.

From various recently recorded observations it would seem that the value of the Gruber-Widal reaction is less than has been supposed, since agglutination is also brought about by allied germs. This does not, however, agree with the experience of P. Mantoufel. While it is true that in 65 per cent. of positive Widal's the paratyphoid bacillus was also agglutinated, all doubts as to the nature of the disease disappeared when the highest dilution in which clumping still occurs was determined. Wherever true typhoid was present, the serum of the patient always agglutinated the typhoid bacillus in higher dilution than paratyphoid bacilli and other allied germs.—Muench. med. Woch.

Cod-Liver Oil in Convalescence from Acute Lung Diseases.

The unquestioned value possessed by cod-liver oil in all conditions of reduced vitality and particularly in those marked by serious nitrogenous waste, has won for it the most extensive use and firmly established it in the medical profession's favor. Not alone in chronic disorders, attended by malnutrition, has its worth been demonstrated but also as a builder of tissue and a restorative in convalescence, especially in that state following acute lung and bronchial inflammations.

At the present season, keeping in mind the prevalence of lung and bronchial diseases, cod-liver oil's possibilities as a food and tonic for convalescents from pneumonia and other acute respiratory ailments should not be overlooked. Few diseases leave a patient so utterly broken down and so susceptible to a still greater disease as do these acute infections of the lungs and bronchi. Judicious care and a properly chosen therapeutic regimen, during the several weeks immediately following a pneumonia, may determine the difference between complete

recovery and the grafting on of a tubercular process.

At this important period, the indicated remedy, cod-liver oil, stands out in bold relief against a back-ground of a host of drugs. But care must be taken that a palatable preparation be chosen, for, though a serviceable product be selected, if its use disturbs the stomach and interferes with this important organ's function, its value will be vitiated by the harm done to the gastric apparatus.

Hagee's cordial of the extract of cod-liver oil compound is the ideal preparation of this class and daily it demonstrates its efficiency in the hands of thousands of physicians. Extemporaneously prepared cod-liver oil combinations cannot receive serious attention when the medical profession has at its command such an elegant, palatable and yet, withal meritorious agent as Hagee's cordial of the extract of cod-liver oil compound. Granting, however, that a product prepared in small quantity and at irregular intervals has some merit, it cannot be so trustworthy as one which is prepared in large quantity and accurately compounded by men who make its preparation a life work.

It is this feature that puts Hagee's cordial at the head of the cod-liver oil preparations, insuring for it stability and certainty of composition. The efficiency of this cordial of the extract of cod-liver oil as a reconstructive is largely enhanced by the addition of the hypophosphites of calcium and sodium, which are in themselves tissue foods of the highest order. The routine administration of Hagee's cordial during the period of convalescence from acute lung and bronchial diseases practically insures against such a serious consequence as tuberculosis and reduces to a minimum the possibility of chronicity of the original disease. —Medical Era.

Percutaneous Tuberculin Reaction.

The percutaneous tuberculin reaction consists in rubbing a lanoline salve, containing 50 per cent. tuberculin, into the skin, directly below the xiphoid process. If the reaction is positive, nodular, papulous efflorescences will appear. Kanitz has tried the reaction in 350 cases. The first group comprises 108 cases of evident tuberculosis; here the reaction was positive in 49 per cent. The best results were obtained in tuberculosis of the skin, bones, joints, and glands, while only 26 per cent. of the pulmonary cases reacted; 64.3 per cent. of cases merely suspected of being tuberculous reacted positively, as well as 11 per cent. of cases surely not tuberculous. It follows

that no positive conclusions can be arrived at. During childhood, a positive reaction seems to be of more value. As compared with the cutaneous and ophthalmic reactions, the percutaneous reaction seems to be less sensitive.—Klin.-therap. Woch.

Treatment of Diphtheria.

Pospischill gives at once large doses of serum (20 to 30 times 1,500 units) and injects part of it locally into the neck. The presence of carbolic acid will usually lead to a transient discoloration of the urine and an edema will appear at the site of injection. If the swelling of the cervical glands is already pronounced, leeches may be applied after the serum has been injected. Respiratory stenosis and bronchitis with tachycardia call for digitalis, caffeine, and warm baths. If the patient is already very low when first seen, and there is pallor, intermittent pulse, nausea or vomiting, 3 Gm. of 1 pro mille adrenalin solution are injected with the antitoxin; later, 150 Gm. of physiological salt solution with 3 Gm. of adrenalin, are injected from two to four times a day, according to the condition of the blood-pressure. Local reactions and glycosuria were not seen. Morphine, if necessary, should not be withheld.—Wien.-klin. Woch.

Spirosal for Rheumatism.

While aspirin and novaspirin are ideal anti-rheumatics for internal use, the same may be said of spirosal, among the external drugs of this class, according to Otto Lehmann. Spirosal is an oily, colorless fluid, which is miscible with alcohol in every proportion. The chief advantage claimed for it is that it does not cause irritation of the skin. It is best to take equal parts of the drug and alcohol, as the drug can be better rubbed into the skin this way, and an agreeable sensation of warmth will result. After about two hours salicylic acid can be readily detected in the urine. The best results were seen in subacute and chronic rheumatic polyarthritides and chronic muscular rheumatism, while in the acute forms the internal administration is of more importance. Three rubbings are given daily, and no general or local irritation will follow.—Therap. d. Gegenwart.

Bromural as an Hypnotic for Children.

Professor Ziehen, privy councillor, director of the University Clinic for Mental Disorders, Berlin, recommends bromural particularly in the severer forms of neurasthenic sleeplessness. His greatest praise of the preparation is, however, devoted to its use as a hypnotic for children. In his lec-

ture upon the use of chemical hypnotics in nervous diseases, he lays great stress upon the fact that in estimating the value of a bromine preparation it is not a question as to how much bromine is contained therein, but as to the form in which it is found combined. According to him, bromural is a drug which, in spite of the trifling percentage of bromine it contains, exhibits powerful bromine effects. Owing to its freedom from by-effects, it is to be warmly recommended for children in the dose of a quarter, a third or half a tablet, from $1\frac{1}{2}$ to $2\frac{1}{2}$ grn. —*Deutsche med. Woch.*

Withdrawing Salt in Epilepsy.

It is a well-known fact that the bromides act better in epilepsy if the amount of salt permitted is reduced. Further observations, however, show that severe disturbances, such as delirium and hallucinations, are liable to follow, while if no bromide is given, no results are seen. Courmont and Cremieu praise the treatment, since it really diminishes the number of attacks, but great care is necessary, since the psychical disturbance may be very severe and even fatal. As soon as the slightest symptom is seen sodium chloride should again be given. It is also best not to give more than 1 to 1.5 Gm. (15 to 22 grn.) of bromide daily during the cure. The reason why bromides act more promptly when the chlorides are withdrawn is not as yet evident.—*Lyon medicale.*

Red Light Treatment of Scarlatina.

The effect of excluding all but the red rays of light has been investigated in many diseases. It is claimed that in smallpox, erysipelas, and eczema the cutaneous manifestations are lessened by excluding all but the red rays. Cnopf has recently tested the effect of the red light treatment on scarlatina, and finds that this disease, too, is altered by it. His observations were carried out on a limited number of children. As soon as the patients were admitted to hospital they were placed in special rooms, in which red curtains allowed only red rays to pass through. He claims that as a result the fall of temperature occurred sooner and in a more critical fashion than in cases similarly treated with ordinary daylight. The redness of the skin becomes less marked under the influence of the red rays, but the pathological change in the skin is not cut short, since exposure to white light brings out the rash again.—*Munchen. med. Wchnschr.*

Myelocytes in the Blood of Infants.

Zelenski and Cybulski (*Rev. med. de la*

Suisse Rom.) examined the blood in a number of cases, using Ehrlich's triacid stain. They found myelocytes in from 1 to 17 per cent. in eight cases of pernicious anæmia in infants. In six cases of prematurely born infants they were present in great numbers. They were also found in some cases of hereditary syphilis, and a few times in severe cases of rickets, and in scrofula and in plithisis. They conclude that myelocytes are present in the blood in all cases of chronic disease in infants, the number depending chiefly upon the age of the infants, being greater the younger they are up to two months.

How Long Should a Puerpera be Confined in Bed?

Bouchacourt is opposed to keeping a woman in bed for 8 days after delivery, and believes that oedema of the uterus is developed thereby which hinders involution. Lying upon the back also favors retention of the lochia predisposing to infection. A partly upright position is more advisable, and lying upon the abdomen is rather beneficial. In favorable cases in healthy women he allows the patient to be raised up in bed. But if there is danger of infection, if the perineum is lacerated, or if the abdominal walls are relaxed or varices or other diseased conditions are present, or if there were anomalies in the delivery such as hydramnios, multiple pregnancy, or an over-distention of the uterus from any other cause, rest in bed should of course be prolonged. Moving about the room or rest on a couch is permitted at the expiration of two weeks, if other conditions are favorable and there is no evidence of infection, the lochia diminished, and the uterus small. The first bath may be taken a few days after getting up, when the lochia have ceased.—*Abstr. from Zentralbl. f. Gyn.*

Pseudoangina Pectoris and Epilepsy.

H. Rowe Jeremy (*Jour. of Med. Science*, January) reports an interesting case of a woman, æt. 30, who several years after the onset of epilepsy developed attacks of excruciating pain over the region of the heart. A physical examination of the latter reveals nothing abnormal, nor is there a history of syphilis, alcoholism and rheumatism. The writer suggests that the attack of the angina pectoris might be due to a disturbance of the cells of the vasomotor centre of the medulla similar to the disturbance of the cells in the cerebral cortex giving rise to an epileptic fit.

We however believe that the attacks of angina with such an acute onset may be an equivalent of epilepsy and should be treated as epilepsy itself.

Oedema in Hemiplegia.

Loeper and Crougon (Nouv. Iconogr. d. l. Salpetriere, p. 187) report three cases of hemiplegia in which oedema of the paralyzed limbs occurred several weeks after the apoplectic shock. In view of the fact that there were also disturbances of the heart and kidneys, the author concludes that oedema in such cases is not always dependent exclusively upon a lesion of the vasomotor and trophic pathways and their centres. The origin of the condition should also be looked for in the heart and kidneys.

Traumatic Myelitis.

Lesions of the spinal cord due directly to trauma without fracture or dislocation of the vertebrae, are not a frequent occurrence. Libotte's case (J. de Neurologie, No. 7) is very interesting from two standpoints: etiology and treatment. A man with a good previous record had a fall from a tree. Flaccid paraplegia with complete loss of reflexes, pain in the lumbar region radiating in the legs, and involvement of the sphincter of the bladder—these are the symptoms of the case immediately after the injury. That the trauma was the direct cause of the myelitis was evident. Prompt intervention consisting of application of continuous electrical currents to the lower extremities, faradization of the spinal column and especially local application of high frequency currents, improved the patient's condition considerably, so that 2½ months later he was able to resume his usual duties. The pain in the extremities, the condition of the bladder disappeared entirely. There was left some difficulty in walking.

The Medical Treatment of Trachoma.—

Ormond in the Practitioner, London, believes the application of a weak silver nitrate solution the most satisfactory treatment for the second stage of trachoma where the patient complains of pain and discomfort, hotness and itchiness of the eyes, with the lids swollen and thickened. A solution of silver nitrate, in distilled water of the strength of one or two grains to the ounce, should be used three or four times daily after the conjunctival sac has been thoroughly washed out with one of the following lotions: Corrosive sublimate, formaldehyde, or chinolol, or a strength of 1 in 10,000 parts of water. The washing of the eyes should be repeated every two or three hours, according to the amount present. The following procedure is advised: Place the patient in a chair with his head well thrown back, or, better still, lying on a couch or table. Have the lotion ready mixed with warm water in a basin beside you; into this put some pledgets of absorbent cotton. In addition, a large piece of

dry absorbent cotton will be needed, which should be held against the patient's cheek to absorb the lotion as it escapes between the eyelids. Press this gently against the cheek with the third and fourth fingers of the hand, leaving the thumb and first finger free to hold the lids apart. Take in the free hand one of the soaked pledgets of cotton, hold it over the inner canthus, allowing the lotion to run from it through the parted lids to the external canthus, from whence it will be absorbed by the dry cotton on the cheek. Continue this flushing of the conjunctival sac for two or three minutes, constantly moving the lids so as to insure that the lotion will reach the upper fornices of the conjunctival sac. It being sometimes more difficult to deal with children, the following hints may be valuable: After thoroughly cleansing the outside of of the lids, allow some of the lotion to remain over the inner canthus in a little pool. Then, the child being on its back, when persuaded to open its eyes, some portion of the lotion must of necessity enter the conjunctival sac, and so make it unnecessary for the operator to keep the lids apart himself.

Time of Conception.—Shaeffer (Deut. Med. Woch.) has examined four aborted fetuses and obtained full data as to the time of intercourse preceding the conceptions. The writer concludes that the views of Sigismund and Loewenhardt according to which the impregnated ovum belongs to the first menstrual period are probably correct. Menstruation consists of the phenomena accompanying the abortion of the unimpregnated ovum. Ovulation and impregnation probably precede the date of the first missed menstrual period of a few days; rarely they may coincide with it. Spermatozoa are capable of remaining alive in the genital tract of the female during the whole period elapsing between two menstruations and thus preserve their impregnating function. A fruitful intercourse can take place at any time, but the postmenstrual period is most favorable for conception. Subjective symptoms of pregnancy may appear very soon after the impregnated ovum is embedded in the uterine mucosa. In reckoning the time of pregnancy, the type of menstruation, the beginning of the last menstruation and its character, the date of the last intercourse between the last menstrual period and the first missed period, and the appearance of subjective symptoms must be taken into consideration. In regular types of menstruation the probable time of impregnation may be obtained by the addition of the number of days intervening between menstruation minus three to the beginning of the last period.

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Laryngeal Conditions Due to Beri-Beri.

—Kanasugi (Berliner Klin. Woch.) says that in these patients paresis of the vocal cords and edema of the larynx occur at times. The paralysis is most often unilateral, the left cord being commonly affected. In some cases this is undoubtedly caused by pressure on the laryngeal nerve by a dilated heart or pericarditis with effusion. The edema of the larynx in beri-beri is not inflammatory in origin. It is a local result of imperfect circulation.

Dysmenorrhœa of Nasal Origin.—Kuttner (Deut. Med. Woch.) finds that it is not an infrequent experience to have cases of dysmenorrhœa follow the use of cocaine.

menthol or other medicament in the nose. Such instances, according to Kuttner, are not due to any especial nervous connection between the nose and the genital tract, as has been urged by Von Fliess and others. He says they are purely psychical manifestations in most cases; the systemic effect of such a drug as cocaine has also to be considered.

A. W. DOWNS, M. D.

Diseases of the Heart and Lungs.

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The Mongolian Type of Idiocy.

Weygand examined 87 cases of idiots of this type and found the following abnormal features. The base of the nose is low and wide, the palpebral fissures are small, the cranium is brachycephalic. In almost every case the tongue presented fissures and enlarged papillae. Various joints are soft, the little finger is curved and the 2nd phalanx is undeveloped. There is a malformation of the ears, asymmetry of the body, defects of viscera, congenital cardiac diseases. Psychically the mongolian type is slow in development. The character is quiet; the language is deficient. They usually die early from intercurrent disease, rarely they go above 25 years of age.

The author endeavors to explain the origin of the abnormalities. He speaks of the thyroid theory, also of congenital syphilis and of tuberculosis.

Centrifugal Conduction of Sensory Nerves.

The existence of centrifugal sensory fibers which stand in some relation until vasodilator and trophic nerves is according to Kohnstamm (Centr. f. Nerv. u. Psychiatr., No. 189) based upon the following facts:

1. Effect of electric currents upon central sections of posterior roots when other posterior roots are irritated (Gotch, Horsley, Mislavsky).

2. Inflammatory symptoms of the eye resulting from irritation of sensory trigeminal neurones.

3. Dilatation of cutaneous blood vessels through irritation of posterior roots, viz: sensory end nerves (Stricker, Bayliss).

4. Cases of reflex herpes zoster caused by irritation of inner organs.

5. Cases of herpes zoster as result of inflammation of spinal ganglia.

6. Loss of hair after the extirpation of the 2nd cervical ganglia.

Hereditary Syphilis in Relation to the Cerebrospinal System.

Richon (Nonv. Ionogr. de la Salpetriere, p. 84) publishes the history of an 11 year old boy presenting a fistula of the left parietal bone. Later a right Jacksonian epilepsy developed and was soon followed by a right hemiplegia. Finally the hearing and sight were lost. Mental impairment was marked. An operation did not improve the condition. Three and a half years later the patient died. On autopsy alongside of a congenital anomaly of the brain was found a fibrous meningoencephalitis lying immediately under the affected bone; this was the cause of epilepsy. There was also a softening of the cerebellum and extensive basilar and spinal meningitis. The syphilitic character of these changes is very suggestive.

Neurosal in Mental Diseases.

The list of hypnotics and sedatives is constantly increasing. Veronal has hardly given proofs of its efficacy as a new remedy makes its appearance. Neuronal, which is a Bromdiaethylacetamid, is administered in doses of 0.5-1.0 gr. (gr. viii-gr. xvi) in mild cases, and 1.5-2.0 gr. (gr. xxiv-gr. xxxii) in pronounced cases of insomnia and excited mental state. According to Weifenbach's investigations (Centr. f. Nerv. u. Psych., January) it is superior to hyoscin or chloral. He administered it in the following diseases: Paresis, epilepsy, manic-depressive insanity, hebephrenia, katatonia, dementia, paranoida and idiocy. For the purpose of control he used neuronal in a number of cases of ordinary insomnia and in healthy individuals. After a prolonged trial the author arrives at this conclusion: that it is a valuable hypnotic in ordinary insomnia and in the excited state of the insane. As a sedative it can be given three times a day from 0.5-1.5 gr. (gr. viii-gr. xvi). It does not possess a cumulative effect. Unfortunately the system gets gradually accustomed to the drug and the narcotic effect of the latter gradually disappears. In regard to its power of inducing sleep it is not superior to trional or veronal. It is not entirely free from unpleasant and toxic complications, but the latter disappear more rapidly than those of other narcotics. It is best to administer in the form of a powder in cool water.

Color Blindness in One-Half of the Visual Fields.

This interesting observation is reported by Karl Abraham (Centr. f. Nerv. u. Psych., January). The patient presented a right hemiplegia with conjugate deviation of the eyes to the left, also a right homonymous hemianopsia. Curiously enough the left visual field was blind for red and green. As the condition is a very rare one, the author experiences a difficulty in explaining the phenomenon. He cannot tell whether the lesion of the left hemisphere, which is the cause of the right-sided symptoms, is at the same time the cause of the color blindness, or the latter is the result of a separate lesion in the right hemisphere, or else the condition is congenital.

Early Marriage as Cause of Nervous Diseases.

Beyer (Centr. f. Nerv. u. Psych., January) considers the question of early marriage of a woman from the standpoint of neuroses and psychoses. Anxieties, differences with the husband, worry are all contributing causes. This is also the opinion of Griesinger, Krapps-Ebing and Virchoff.



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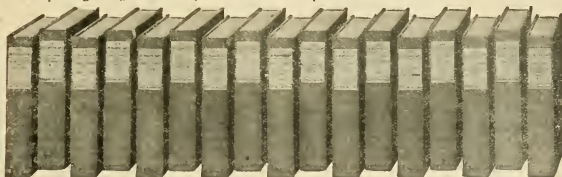
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Hysteria, neurasthenia and hyochondria are a common occurrence in marriages before 21. The author in accordance with others is opposed to marriages before an age when complete bodily development can be expected. The author also believes that the marriage at an early age by itself is an abnormal psychic phenomenon. He therefore advises regulation of marriages by special laws.

Intention Tremor Limited to One Arm.

An intention tremor is usually considered one of the most important symptoms of multiple cerebro-spinal sclerosis. A diagnosis therefore does not present any difficulty, when other symptoms of the affection are associated. A tremor alone without any other symptom is almost impossible to explain on the basis of an organic lesion. Bouchard reports a very interesting case with autopsy, in the *Jour. de Neurol.*, No. 8. A man of 62 had an anthrax on the neck. Energetic treatment promptly applied improved the condition, but the recovery was extremely slow. During convalescence he had several attacks of loss of consciousness. After the last attack he noticed some weakness and a tremor upon voluntary acts in the left arm. At rest the arm was perfectly quiet, but as soon as it attempted to do anything the tremor appeared. Apart from a tachycardia the patient did not show any other symptoms until his death. At autopsy were found atheromatous changes of the arteries and a distinct linear area of softening in the very posterior portion of the right internal capsule. It is therefore evident that this lesion was the immediate cause of the intention tremor. [The case is certainly highly important from the standpoint of the pathogenesis of a limited tremor.]

Hysterical Paraplegia.

That paralysis of the extremities is not always of organic origin, but of a functional nature, can be seen from the following case reported by Crocq in the *Jour. de Neurologie*, No. 8. A man with a good previous record suddenly felt a weakness in his lower extremities. Examination showed absence of any symptoms indicating an organic involvement of the cord, except perhaps the knee-jerks which were somewhat exaggerated. The sensations of the legs presented distinct disturbances, which however varied from day to day; the pharyngeal anesthesia was absolute. All these symptoms in addition to the general emotional state of the patient pointed to hysteria. Subsequent events proved the diagnosis to be correct, as great improvement followed sances of hypnotism: all the motor and sensory disturbances had almost entirely disappeared.

Jacksonian Epilepsy.

It is a well established fact that unilateral epileptiform convulsions are due to a focal lesion of the motor area of the brain. Henneberg's case reported in the *Centr. f. Nerv. u. Psych.*, No. 187, seems to indicate that this view is not absolute. A child of 10 presented a typical Jacksonian epilepsy with a motor aphasia. She was accordingly trephined. Nothing was found. When a month later she died from meningitis, sections of the brain gave equally negative results. The author explains this curious negative finding by circumscribed circulatory disturbances or by a toxic condition. He recalls a similar case of Oppenheim's.

Exophthalmic Goitre.

The treatment of Graves' disease has always been quite unsatisfactory. The reason lies in the great difficulty of explaining the pathogenesis of the affection. Good results obtained by some competent observers are not explainable. However, they are facts which must be accepted. In the *Journal de Neurologie*, No. 8, Libotte regards several cases in which electrical applications gave good and excellent results: the goitre, tremor, tachycardia and even the protrusion of the eyes—all improved considerably. This seems to be remarkable in view of the fact that we are still at sea by what mechanism electricity can remedy any morbid condition.

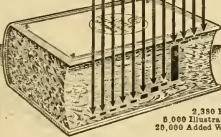
Traumatic Neurosis.

Shocks produced by traumatism are sometimes accompanied by symptom-groups which cannot find a place in the classical types of nervous or mental diseases. A diagnosis is then difficult. Crocq reports an interesting case in *J. de Neurol.*, No. 1. A railroad man of 40 was thrown backward by a car and he fell on his back. There was no loss of consciousness. A few minutes later he resumed his work. The next morning he complained of pain in the back, head and limbs. On the sixth day he got so much better that he could get up. During an entire month the patient felt well, but then the symptoms returned. At this period the patient's condition was as follows: The mentality was slow, he understood questions with difficulty. He became morose, indifferent to the surroundings. Memory was markedly impaired. Headache and backache was intense, insomnia almost absolute. Gait was difficult. Tongue coated, constipation obstinate. Vision poor. Cutaneous sensibility abolished over the entire body. Tendon reflexes were exaggerated, but no evidences of involvement of any special tract were present. The bodily weight was very much diminished. An appropriate treatment was applied and the

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patient improved physically to a great extent, but the mental condition only slightly improved. The diagnosis in this case could be made only as one of traumatic neurosis.

Microcephaly.

An interesting case from a hereditary standpoint is reported by Haugi in the Bull. et Mem. de la Soc. d'anthrop. de Bruxelles T. XXI. The grand-father of a 3 year old microcephalic child had a small cranium (circumference 575 mm., length 175, width 159 mm., cephalic index 90.85). His son presented peculiarities of the cra-

nium and face to a marked degree; he could be called "submicrocephalic" (circumference 692, length 169, width 158 mm., index 92.30). One grand-child is also microcephalic (circumference 309 mm., length 99, width 95, index 95.95). The mother of the present child after the second confinement had a protracted attack of typhoid fever. She soon became pregnant again and during this third pregnancy she suffered from a suppurating focus of the upper jaw, which weakened her considerably. The child, which was the third, was born microcephalic. The fourth child presented the same malformation as the third.

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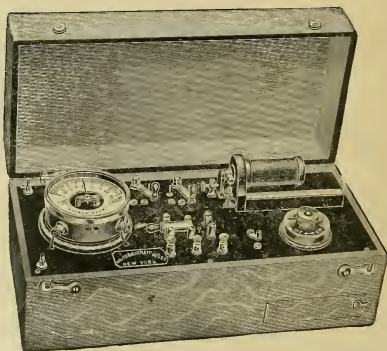
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